EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	28976	(usage or use or digital or play$3 or listen$4) near5 right	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:41
L2	2754388	(error near5 correct$3 or code) or ECC	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42
L3	1622	1 same 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42
L4	243752	header	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42
L5	292	1 same 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42
L6	446	3 and 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42
L7	82	3 and 5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:42

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	28972	(usage or use or digital or listen$3 or play$3) near5 right	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:50
L2	56231	(error near5 correct$3 near5 code) or "ECC"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:50
L3	696	1 and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:50
L4	243752	header	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:51
L5	287	3 and 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:51
L6	109084	encrypt$3	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:51
L7	197	5 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 14:51

real

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	1093392	encrypt$3 or decrypt$3 or encod$3 or decod$3 or scrambl$4 or unscrambl$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:05
L2	2838565	right or licens$4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:05
L3	271521	1 and 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:06
L4	56231	(error near5 correct$3 near5 code) or "ECC"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:07
L5	12383	3 and 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:07
L6	818946	(usage or use$1 or using or access$3 or review$3 or view$3 or play$3 or listen$3 or watch$3) with 2	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:09
L7	3811	5 and 6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:09

L8	1712574	copy$3 or copi$1 or reproduc$6 or duplicat$4 or replica$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:10
L9	10370306	content or work or music or song or file or document or movie or audio or video or data	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:12
L10	478043	8 with 9	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:15
L11	2355	7 and 10	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:16
L12	2069	2 same 4	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:16
L13	225	11 and 12	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2007/05/03 17:16

recd

EAST Search History

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	83217	(encrypt$4 or encod$3 or scrambl$4).clm.	US-PGPUB	OR	ON	2007/05/03 18:05
L2	41656	(right or licens$4).clm.	US-PGPUB	OR	ON	2007/05/03 18:05
L3	86755	(error near5 correct$4 or code).clm.	US-PGPUB	OR	ON	2007/05/03 18:05
L4	835	"ECC".clm.	US-PGPUB	OR	ON	2007/05/03 18:06
L5	86953	3 or 4	US-PGPUB	OR	ON	2007/05/03 18:06
L6	865	1 and 2 and 5	US-PGPUB	OR	ON	2007/05/03 18:06
L7	50847	(copy$3 or copie$1 or reproduc$6 or duplicat$4 or replica$5).clm.	US-PGPUB	OR	ON	2007/05/03 18:07
L8	188	6 and 7	US-PGPUB	OR	ON	2007/05/03 18:07

read

```
? show files
File   15:ABI/Inform(R) 1971-2007/May 02
          (c) 2007 ProQuest Info&Learning
File   16:Gale Group PROMT(R) 1990-2007/May 02
          (c) 2007 The Gale Group
File  148:Gale Group Trade & Industry DB 1976-2007/May 02
          (c)2007 The Gale Group
File  160:Gale Group PROMT(R) 1972-1989
          (c) 1999 The Gale Group
File  275:Gale Group Computer DB(TM) 1983-2007/May 02
          (c) 2007 The Gale Group
File  621:Gale Group New Prod.Annou.(R) 1985-2007/May 02
          (c) 2007 The Gale Group
File    9:Business & Industry(R) Jul/1994-2007/May 02
          (c) 2007  The Gale Group
File   20:Dialog Global Reporter 1997-2007/May 03
          (c) 2007 Dialog
File  476:Financial Times Fulltext 1982-2007/May 03
          (c) 2007 Financial Times Ltd
File  610:Business Wire 1999-2007/May 03
          (c) 2007 Business Wire.
File  613:PR Newswire 1999-2007/May 03
          (c) 2007 PR Newswire Association Inc
File  624:McGraw-Hill Publications 1985-2007/May 03
          (c) 2007 McGraw-Hill Co. Inc
File  634:San Jose Mercury  Jun 1985-2007/May 02
          (c) 2007 San Jose Mercury News
File  636:Gale Group Newsletter DB(TM) 1987-2007/May 02
          (c) 2007 The Gale Group
File  810:Business Wire 1986-1999/Feb 28
          (c) 1999 Business Wire
File  813:PR Newswire 1987-1999/Apr 30
          (c) 1999 PR Newswire Association Inc
File    2:INSPEC 1898-2007/Apr W4
          (c) 2007 Institution of Electrical Engineers
File   35:Dissertation Abs Online 1861-2007/Apr
          (c) 2007 ProQuest Info&Learning
File   65:Inside Conferences 1993-2007/May 03
          (c) 2007 BLDSC all rts. reserv.
File   99:Wilson Appl. Sci & Tech Abs 1983-2007/Mar
          (c) 2007 The HW Wilson Co.
File  256:TecInfoSource 82-2007/Apr
          (c) 2007 Info.Sources Inc
File  474:New York Times Abs 1969-2007/May 03
          (c) 2007 The New York Times
File  475:Wall Street Journal Abs 1973-2007/May 03
          (c) 2007 The New York Times
File  583:Gale Group Globalbase(TM) 1986-2002/Dec 13
          (c) 2002 The Gale Group
? ds


Set     Items   Description
S1    1016381   ENCRYPT???? OR ENCOD??? OR SCRAMBL???
S3      23595   ERROR? ? (5N) CORRECT???? (5N) CODE? ?
S4      40073   ECC
S5      59929   S3 OR S4
S6       7571   S1 AND S5
S7   18211450   RIGHT? ? OR LICENS????
```

```
S8    56491572    USAGE? ? OR USE? ? OR USING OR ACCESS??? OR REVIEW??? OR V-
                  IEW??? OR PLAY???? OR LISTEN??? OR WATCH???
S9     1439724    S7 (5N) S8
S10        319    S6 AND S9
S11    5443314    COPY??? OR COPIED OR COPIES OR REPRODUC????? OR DUPLICAT??-
                  ?? OR REPLICA?????
S12        106    S10 AND S11
S13         49    S12 NOT PY>1999
S14         40    RD  (unique items)
```

real ?

? t s14/medium,k/all

14/K/1   (Item 1 from file: 15)

Systemic   innovation   and   the   virtues   of   going virtual: The case of the digital video disc
De Laat, Paul B

...TEXT: is IBM, and its creating the PC in 1981.14 It is a story of **using** a virtual approach **right** from the start. What came to be known as the PC was the integration of...An open approach to standards is necessary, in which other companies are generously licensed to **copy** all hard-and software of the emerging technology. The more systemic an innovation is intended....design. Rumours have it, for instance, that lamination technology came from Matsushita and Pioneer, and **error   correction** technology (Reed Solomon **code**) from Matsushita. Toshiba seems to have contributed very little: it only pulled the strings together...matters considerably by formulating far-reaching demands. For a start, in order to prevent illegal **copying** of their movies once released on DVD ('piracy'), they pressed for digital-to-digital **copy** protection through **encryption** . Movies are to be put on disc in **encrypted** form, leaving it to the DVD player to decrypt the contents back again. Interests of...

...in this matter. Two schemes, both proprietary knowledge from Matsushita, were put forward: a mild **encryption** regime, and a strict one. Studios, of course, cried for the strongest protection possible. The...

...would become overburdened by the decryption task. Therefore, they preferred the proposed milder kind of **encryption** . This in turn met with resistance from the studios, as it will only ward off amateur 'hackers'; professionals will easily be able to decrypt the scheme and **copy** the digital content. It now seems, that the mild regime prevails: the so-called Content **Scrambling** System (CSS). Next to this, analog **copy** protection has been agreed upon as well: APS from Macrovision. This system prevents the analog...

...case, only unencrypted movies can be watched on a PC. All Hollywood DVD movies being **encrypted** , a country lock for DVD-ROM seemed superfluous. Incompatibility between ROM and video would have...to be able to watch movies on their PC. This implied that decryption of CSS **encrypted** movie contents had to be built into the system. Through this move, Hollywood felt their...
...But that was not the end of it; to accommodate Hollywood, regional codes and an **encryption** scheme have been worked into the standard as well. No major player in the chain...

14/K/2   (Item 2 from file: 15)

Compaq's XP1000 professional workstation
Barker, Ralph

UNIX Review's Performance Computing v17n8 PP: 37-41 Jul 1999
ISSN: 1098-7150 JRNL CODE: URPC
WORD COUNT: 2221

...TEXT: at 500MHz. The 21264 incorporates an MMX-like multimedia
instruction set (aimed mostly at video **encoding**), has 128KB of on-chip LI
cache (64KB each for instructions and data), and can...

...OS was known as OSF/1, but was renamed Digital UNIX several years ago.
The **copy** loaded on our test system still bore the name Digital UNIX. A
two- **user** **license** is included with the factory installation on the
XP1000. The system includes CDE as the...of 128MB RAM (entry-level
configuration) can be expanded to 2GB, using SDRAM DIMMs with **ECC**
support.

Connectors on the back panel include two serial ports (DB-25), one parallel
port...

14/K/3   (Item 3 from file: 15)
DIALOG(R)File 15:ABI/Inform(R)
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01691206 03-42196
An expansive proposition
Michel, Roberto
Manufacturing Systems v16n7 PP: 25-106 Jul 1998
ISSN: 0748-948X JRNL CODE: MFS
WORD COUNT: 33912

...TEXT: than 40-percent sales growth over the past year, and it expects to
at least **duplicate** , if not improve on, those results over the next 12
months. Layton attributes the growth...s significant few. The company also
has added new customers including Litton GCS, GEC-Marconi, **ECC**
International, and AIL Systems.

The second major area of growth has come in WDS's...ongoing strength
include high reliability, low cost, easeof-use, and robust performance. "As
companies are **scrambling** to deal with the Year 2000 issue," he says,
"many of them are finding that...of Ramco Marshall involves two major
factors:

The database can be functionally distributed due to **replication** and
transaction management services built into the system.
"Databases can be distributed both physically and...

...a fourth. It would seem like one system to the user, and the only data
replicated across the enterprise would be that needed for related
transactions."

The applications are customizable and...dependent, since CMS typically
charges a flat $ 125,000, with a corporate license for unlimited **copies**
running about $325,000. Implementation, which requires from four to nine
months, ...required by some of the major ERP vendors," says Angle.
"Because we don't have **duplicate** coding, our entire software still loads
out in total disk space at well under 2...using both analytic and asset
management systems, users gain insight and better manage costs by
accessing and applying the **right** information, says Jett. The Immpower
asset management system uses activity-based costing (ABC), a technique...

14/K/4   (Item 4 from file: 15)
DIALOG(R)File   15:ABI/Inform(R)

01560184   02-11173
The many faces of high-density rewritable optical
Parker, Dana J
EMedia Professional v11n1 PP: 60-71 Jan 1998
ISSN: 1090-946X JRNL CODE: LDP
WORD COUNT: 5947

...TEXT: very nature of the DVD Video format, which is far more complex
than an MPEG- **encoded** data stream, and requires a DVD-Video subsystem to
decrypt and decode video and audio...

...only technically feasible, but even attractive. For example, by
combining a real-time MPEG-1 **encoder** with a rewritable optical drive and
medium, and with NTSC playback capability, you would have...

...s) and play it back on a standard television. Give this device an MPEG-2
encoder , at 5Mb/s data stream sizes, and the video quality approaches
laserdisc, although the video...lands and grooves. DVD-RAM drives will also
need a decoder to handle scattered 32K **ECC** Blocks, something not needed
for DVDROM and DVD+RW, since their blocks are contiguous.
(Photograph...non-linear video editing, image archiving, and MPEG-2 and
AC-3 video and audio **encoding** , with the removable ASMO media a likely
candidate as input media for DVD **replication** . Other anticipated PC
applications include archival storage, network server data storage, and
highperformance desktop publishing...

...to 5.2GB per side. MMVF uses land and groove recording and 1,7 RLL
encoding (DVD+RW and DVD-RAM use 8-16 modulation, or 2,10 RLL, like DVDROM
...

...specifications are what make compatibility with read-only DVD possible,
at least as far as **replicated** DVD discs playing in rewritable drives are
concerned. When it comes to compatibility between and...with existing
DVD-ROM physical data organization, DVD+RW uses written splice areas
between 32K **ECC** blocks. DVDRAM uses embossed and written areas between 2K
sectors.

DVD-ROM error correction is based on contiguous 32K **ECC** blocks, which
allows the block to be read and corrected as a whole, while DVD...

...uses both land and groove for placing write marks. Physical data
organization at a glance (**right**): DVO+RW **uses** 32K **ECC** blocks like
DVD-ROM, but with written splice areas added DVD-RAM takes the 2K **ECC**
approach, but uses embossed areas for write splices and additional
addressing.

DVD-RAM has the...

14/K/5   (Item 5 from file: 15)
DIALOG(R)File   15:ABI/Inform(R)

01093137   97-42531
What can users expect from digital and analog?

...TEXT: technology they say, is the way to go. With improved call-set-up time and **encryption** techniques -- there are no digital scanners yet -- that are critical in public safety, digital radios...to believe."

Some service providers have adopted the Project 25 recommendations and made the necessary **licensing** agreements to produce interoperable systems **using** Frequency Division Multiple Access (FDMA). At this point, however, the "Recommended Standard" is still a...

...same quality of voice in 12.5 kHz that currently exists in 25 kHz, then **duplicate** that quality in 6.25 kHz as well.

Technology has now matured and new digital...opportunity to evaluate what other features it could glean from its new equipment, namely digital **encryption** .

"That's part of what spurred our participation in Project 25," Downs explained. "If digital...FHMA, the radio will hop eventually to all available channels in an order determined by **code** . In the case of jamming, an **error** **correcting** code resends the data on the next available channel.

TDMA: Time Division Multiple Access distributes spectrum...

14/K/6   **(Item 6 from file: 15)**
DIALOG(R)File 15:ABI/Inform(R)
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...TEXT: trite-once CD." See CD-WO.

CD-ROM: Compact Disc-Read Only Memory. A laser- **encoded** optical memory storage medium, defined by the Yellow Book standard.

CD-ROM DRIVE: A computer...

...submitted to ECMA by the Frankfort Group. See CD-Recordable.

CIRC: Cross Interleaved Reed Solomon **Code** . A method of **error** detection and **correction** used on CD-Audio discs and as a basis for layered **ECC** on CD-ROMs. Reed Solomon codes are especially effective when errors occur in bursts, as...electronic device or hardware key that plugs into one of the ports of a PC. **Used** to control **access** to **licensed** applications; the software checks the key for its serial number, without which the program cannot...

...compress and decompress data on CD-ROM, CD-I, hard and floppy disks.

E

EDC/ **ECC** : **Error** detection **code** / **error** **correction** **code** . A special, highly complex and very efficient method of **error** detection and **correction** for CD-ROMs, which is defined in the Yellow Book specification.

EFM: Eight to fourteen modulation.

ENCODE : To convert information into machine or computer-readable format.

EXECUTABLE: In MS-DOS, a file...light, whose individual wave phases are unrelated to the phases of the others.

LAYERED EDC/ **ECC** : Layered **error** detection/ **error** **correction** **code** . Used to ensure the integrity of CD-ROM data. So-called because it is used ...

...FACILITY: A manufacturing plant where compact disc "masters" are created for the mass production or **replication** of the actual compact discs.

MEGABYTE: 1,048,576 bytes. See byte.

METAL MASTER: A...facilities, the metal plate used to mass produce discs. It can stamp out thousands of **copies** of the disc in polycarbonate.

T

TITLE: Generally refers to a CD-ROM containing information...

14/K/7 **(Item 7 from file: 15)**
DIALOG(R)File 15:ABI/Inform(R)
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00807317 94-56709
Cutting gold: A guide to in-house CD-ROM production
Young, Andrew
CD-ROM Professional v7n1 PP: 100-107 Jan 1994
ISSN: 1049-0833 JRNL CODE: LDP
WORD COUNT: 5327

...TEXT: be ready to test the image or send it off to a disc manufacturer for **replication** .

ISO 9660

Similar levels of simplicity occur in other areas of application. Much depends on...high density 5.25" floppy disks or four 150MB QIC tapes. In quantities of 100 **copies** , manufactured CD-ROMs are cheaper than 20 floppies or a single QIC tape. Yet CD...

...Who is the target audience for the disc?

This is occasionally done where expensive, per- **copy** **licensed** software is **used** to **access** the data being distributed. Many CD-ROM publishing tools must be resident on the discs they access and offer very low cost per **copy** licensing fees to keep these costs from being a significant barrier.

Is the disc for...

...or for internal use? How does this impact your decisions about

packaging? How many disc **copies** will you need? Commercial CD-ROM
publications tend to use flashier packaging, full-color instruction...

...jewel cases. Internal disc projects seldom require such frills. For
projects requiring very few disc **copies** , very fast turnaround or tight
security, one may even choose to produce all the discs...case of
copyrighted materials, in which case acquiring the materials usually
requires negotiating for the **rights** to **use** them. This is an active area
of debate in the multimedia arena because many of...

...vast amounts of valuable audio, film, and video source materials with
the clear intention of **licensing** these materials to others to **use** in
multimedia publications, developing multimedia titles themselves, or both.
Many prospective multimedia developers find themselves...those which will
not. Once these files are placed into the directory structure to be
duplicated on the disc you will generally not be able to move them or the
indexes...

...be run on the same machine on which the data resides, avoiding the step
of **copying** the data set to magnetic tape for delivery to the service
vendor, and **copying** the formatted disc image back when it is returned.
Secondly, the formatting can be run...

...to be recorded on the disc, while a logical disc image is created by
actually **copying** the data to a file, magnetic tape or hard disk partition
in the exact sequence...cycle is substantially decreased because the entire
disc image does not have to be physically **copied** from the original data
files to a hard disk. This can save a significant amount...

...be distributed among many servers and the consumption of time and
network bandwidth required to **copy** the entire data set should be avoided
until the image has been tested and is...of label art and other materials.

The process of production includes three main phases: mastering,
replication and packaging. Mastering, as referred to here, involves
several steps. The data must be loaded and verified. Next the necessary
low-level data **encoding** , including **error** detection and **correction**
codes , is generated. Then a glass master is etched, from which metal
masters are made. During **replication** , a metal master is used in the
injection-molding machines which create the disc **copies** . The molded
duplicate is metalized to provide the necessary reflectivity and sealed
with another layer of plastic, onto...

...1000 or as much as $3000 depending on how quickly you need discs. Each
disc **copy** will cost $1.35 to $2 in quantities of 100 to 200 **duplicates** .
Two color labels printed on the discs are usually included at that price.
Jewel cases...

14/K/8   (Item 1 from file: 16)

06466342   Supplier Number: 54851727   (USE FORMAT 7 FOR FULLTEXT)
COMPAQ'S XP1000 PROFESSIONAL WORKSTATION.(Alpha system)(Hardware
  Review)(Evaluation)
Barker, Ralph
UNIX Review's Performance Computing, v17, n8, p37
July, 1999
Language: English   Record Type: Fulltext Abstract

Article Type: Evaluation
Document Type: Magazine/Journal; Trade
Word Count: 2306

...   at 500MHz. The 21264 incorporates an MMX-like multimedia
instruction set (aimed mostly at video **encoding**), has 128KB of on-chip L1
cache (64KB each for instructions and data), and can...

...OS was known as OSF/1, but was renamed Digital UNIX several years ago.
The **copy** loaded on our test system still bore the name Digital UNIX. A
two- **user** **license** is included with the factory installation on the
XP1000. The system includes CDE as the...of 128MB RAM (entry-level
configuration) can be expanded to 2GB, using SDRAM DIMMs with **ECC**
support.
        Connectors on the back panel include two serial ports (DB-25), one
parallel port...

 14/K/9 **(Item 2 from file: 16)**
DIALOG(R)File 16:Gale Group PROMT(R)
(c) 2007 The Gale Group. All rts. reserv.

05988291   Supplier Number: 53351478   (USE FORMAT 7 FOR FULLTEXT)
LOST IN COLOR SPACE.
Waggoner, Ben
Interactivity, p31(1)
Dec, 1998
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 7193

...   science devised a construct called a color space. This concept
became the fundamental means of **encoding** color digitally, and a multitude
of variations evolved. The limitations of processor speeds, RAM capacities,
and numbers of bytes per digital word demand that color space **encoding** be
as efficient as possible, resulting in a number of bit depths and sampling
schemes...color. The samples of red, green, and blue at each point in space
can be **encoded** in separate channels, and the process of assigning a
discrete number to each sample is...

...ideal for image processing. Luminance is a critical aspect of video, and
RGB doesn't **encode** it directly. Rather, luminance is an emergent property
of RGB values, meaning that it arises...
...requires changing the value of each channel A simple hue shift requires
decoding and re- **encoding** all three channels via substantial mathematics.
Nor is RGB especially conducive to data compression. Theoretically...
720x243 fields. If DV were to use 4:2:0, only one color sample would
encode every two lines in afield, or one sample for every four lines in
the final...

...time to time. In practice, they all yield pretty much the same results.
They all **encode** luminance, but the colors of the chrominance channels are
different. Adobe Photoshop's LAB color...

...is quantization done? The answer is color depth, or the number of bits
available to **encode** each channel.
        Most users first encounter color depth when they set their monitor
between 256...to choose the nearest equivalent to a given number from a
limited set of choices. **Encoding** colors digitally inevitably introduces
this kind of error, since there's rarely an exact match...still images, but

it can hamper interframe video codecs severely. Since interframe codecs work by **encoding** each plane independently the perturbation in the color channels make compression much less efficient It...

...for input and output In this situation, quant errors build up as an image is **copied** back and forth between hard disk and RAM.
    Media 100 claims their on-line digital...out on the Web. It's the reason why many of the JPEG files I **view** in Internet Explorer look **right** on my PowerBook 3400c screen. When a JPEG image is created, an ICC color profile...

...quant errors).
    4. Add an effect (add quant errors).
    5. Add another effect (add quant **errors**).
    6. Add a dissolve (add quant **errors**).
    7. **Correct** gamma for PC (add quant **errors**).
    8. Convert to YUV-9 via Sorenson Video **codec** (add quant errors).
    Ouch! Every filter and every composition adds quant errors, and by this...

 14/K/10   **(Item 3 from file: 16)**
DIALOG(R)File   16:Gale Group PROMT(R)

05839370   Supplier Number: 50351048   (USE FORMAT 7 FOR FULLTEXT)
DIVX vs. DVD-Video
LABARGE, RALPH
Interactivity, v4, n10, p63
Oct, 1998
Language: English   Record Type: Fulltext
Article Type: Article
Document Type: Magazine/Journal; Trade
Word Count: 2164

   ...   player. Additional viewing periods can be purchased for about $3 and consumers can buy the **right** to unlimited **viewing** of a tide for an additional $20 or so.
    DIVX offers consumers some attractive financial...

...make an outgoing call. Second, it contains circuitry for decrypting DIVX discs. (DIVX tides are **encrypted** using a state-of-the-art Triple-DES algorithm that offers additional protection to the...can even include a provision for error detection and correction using a standard Reed Solomon **ECC** algorithm.
    As I mentioned, DIVX is using the BCA to store a unique serial number
    ...

...serial number as BCA data is that it makes it extremely difficult to pirate a **copy** of the software program. A number of existing Internet sites let you download a fully functional **copy** of just about any popular computer software program along with valid serial numbers -- normally acquired...

...k data will make it almost impossible to install a software product without a real **copy** of the disc.
    Let's look at a theoretical example of how DVD-ROM might...

...would cost to publish each product on its own CD-ROM. CD-ROMs can be **replicated** in mass quantities for about 50 cents each, including the cost

of the jewel case and shrink-wrap. Single-layer, single-side DVD-ROM discs
can be **replicated** in mass quantities for about $2.00 each, including the
cost of the jewel case and shrink-wrap. So Microsoft could save about $1.50
per **copy** in manufacturing costs if it publishes the seven products on a
single DVD-ROM. There...

...This is a pretty simplistic example, and I know that Microsoft sells a
lot more **copies** of Windows 95 or Windows 98 than **copies** of Visual C++,
but the concept is still valid. Just about anyone in the software...

 14/K/11   (Item 4 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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05811526   Supplier Number: 50316987 (USE FORMAT 7 FOR FULLTEXT)
ViaTech Adds RSA Security Technology to VTCyberPak(TM) Enabling Electronic
  Software Distribution Solutions
PR Newswire, p915SFMTU02
Sept 15, 1998
Language: English   Record Type: Fulltext
Article Type: Article
Document Type: Newswire; Trade
Word Count: 606

...   SAN MATEO, Calif., Sept. 15 /PRNewswire/ -- RSA Data Security, Inc.
today announced that it has **licensed** its widely **used** BSAFE(TM)
encryption engine for use in ViaTech Inc.'s VTCyberPak(TM) e-commerce
solution. VTCyberPak incorporates try-and-buy capabilities, secure
electronic purchases, electronic distribution and automated electronic
licensing in a single product.
     VTCyberPak **uses** RSA technology to provide secure communication
between the customer's desktop and the clearinghouse in...

...best-selling cryptography engines and provides software developers with
multiple algorithms and modules for adding **encryption** and authentication
features to applications. BSAFE includes modules for popularsecurity
encryption techniques, such as RSA, DES, RC2, RC4, and Elliptic Curve
Cryptography (**ECC**), and also supports digital signatures and
certificates.
     "We are pleased that ViaTech has chosen the power of RSA's **encryption**
 technology to provide security for the VTCyberPak electronic commerce
solution," said Al Sisto, chief operating...

...s VTCyberPak manages the process of electronic software distribution,
from evaluation through purchase and controlled **licensed**   **use** ," said
Robert Doherty, president and CEO of ViaTech, Inc. "With VTCyberPak,
software publishers can feel...

...'software distribution (ESD) and software license management
marketplaces. ViaTech provides turnkey solutions for evaluation and
licensing products distributed to the end **user** 's desktop from the
Internet or CD-ROMs. ViaTech's VTCyberPak delivers an e-commerce...

...a leading supplier of software components that secure electronic data,
with more than 300 million **copies** of RSA **encryption** and authentication
technologies installed worldwide. RSA technologies are part of existing and
proposed standards for...
PRODUCT NAMES: *7372691   (Data **Encryption** Software); 7372640
     (Electronic Commerce Software)

14/K/12   (Item 5 from file: 16)
DIALOG(R)File   16:Gale Group PROMT(R)
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05684597   Supplier Number: 53110817   (USE FORMAT 7 FOR FULLTEXT)
The 1998 Products of the Year.(Buyers Guide)
Network, pNA(1)
April 1, 1998
Language: English   Record Type: Fulltext
Article Type: Buyers Guide
Document Type: Magazine/Journal; Trade
Word Count: 11823

...   coming to expect in this class of server, including redundant power
supplies, redundant cooling fans, **ECC** memory, redundant disk arrays, and
support for redundant network adapters.
      Added to this list is...in having two distinct management regimes.
      In the summer of 1997, CA began giving away **copies** of the Unicenter
TNG
      Framework, a surprisingly complete set of management tools that forms
the...up a strong front door, Firewall-1 also includes virtual private
networks capability by supporting **encrypted** sessions between firewalls or
between a secure client and a firewall.
      The 3.0 version...a Novell shop? There's no need to worry because
      BorderManager comes with a two- **user** **license** for IntranetWare
4.11.
      BorderManager is one step in Novell's much-anticipated foray into...

...and NT, to Macintosh clients.
      Aside from authentication, TrustBroker also provides related
secondary security, including **encryption** , message integrity, password
protection, and mutual client-to-server and server-to-client
authentication. And...

...CyberSafe, 1605 N.W. Sammamish Rd., Issaquah, WA 98027, (425) 391-6000,
www.cybersafe.com.

----- **ENCRYPTION**
      Sun Microsystems
      SunScreen SKIP
      The value of firewalls and authentication systems is a no-brainer...

...eyes on your data, especially as it crosses the public Internet, you
need a solid **encryption** package that will safeguard all IP applications
without having to modify the applications themselves.
      SunScreen...
...95 or NT, or
      Sun Microsystem's own Solaris operating system. The product not only
encrypts all IP traffic traversing between clients, but, through support
of signing keys and digital certificates...

...ensuring it hasn't been tampered with or looked at by others. (SKIP
supports such **encryption** algorithms as Data **Encryption**
      Standard [DES] and RC4.)
      By operating at the Network layer, SunScreen SKIP is independent of
...

...applications without those applications having to know anything about

what's going on.

Export of **encryption** products has been a volatile topic between vendors and various national governments, so Sun has...it runs on Unix or Windows NT and uses Secure Sockets Layer (SSL) and RSA **encryption** .

One item that sets Commerce Exchange apart from its competitors is that it batches transactions...of backup sources, support for Informix and OpenIngres, and end-to-end data compression and **encryption** . The newest twist is that

ARCserve includes the Unicenter TNG Framework (see "Management Platform," page...
...and many-to-one--on all platforms.

Operating at the file system level, Double-Take **replicates** selected data or entire volumes from source servers to target servers across LAN and WAN...

...server, and to create accurate and current test environments, where relevant files and directories are **copied** to a test server.

With its cross-platform support, multiple configuration options, and myriad applications...new corporate frontier in which electronic documents would flow effortlessly, without the hassle of hard **copies** that seem to clone themselves uncontrollably whenever you turn your back?

This vision has yet...

...churn out up to 32 pages per minute, as well as collating and stapling multiple **copies** .

The DocuPrint N32 is one example of Xerox's attempt to muscle in on the...

...same principle as the Mopier:

It's more cost-effective and efficient to print multiple **copies** of a document straight from the desktop, as opposed to generating a single document and...of protocols, currently an IETF Internet Draft, cover multiple areas, from authenticating packet integrity, to **encrypting** their contents, to verifying the identity of a packet's sender, to exchanging keys.

IPSec...

14/K/13   (Item 6 from file: 16)
DIALOG(R)File   16:Gale Group PROMT(R)
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05029525   Supplier Number: 47384293   (USE FORMAT 7 FOR FULLTEXT)
RSA FILES LAWSUIT AGAINST PGP, REOPENING LONG-STANDING FEUD
Electronic Messaging News, v9, n10, pN/A
May 14, 1997
Language: English   Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 963

   (USE FORMAT 7 FOR FULLTEXT)
TEXT:
Users of **encryption** software from San Mateo, Calif.-based Pretty Good Privacy Inc. (PGP) could find themselves using illegal **copies** of PGP's popular application.
...   Lemcom (now PGP) files to ensure that a licensee neither gives away source code nor **copies** software illegally.

PGP accepted the license agreement when it merged with Lemcom. PGP's **encryption** software is based on RSA's Digital Signature Algorithm.

RSA seeks "declaratory and injunctive relief...

...PGP.

   "All they have to do is show proof that they have paid for every **copy**
of a program delivered to a customer and it will be over," says Jim Bidzos
...

...president. "Why do they refuse an audit? What are they trying to hide?"
   PGP licenses **encryption** technology from RSA. Originally, PGP
licensed the technology from Public Key Partners, a now-defunct...

...customers," says Antonio Sarabia II, a Manhattan Beach, Calif., lawyer
specializing in intellectual property and **licensing** .
   "If a developer or **user** is in possession of something that infringes
on a patent, everyone who is using it...

...profits by selling technology or getting a product to market sooner,
Jacobson says.
   Today's **Encryption** Scenario
   In the early 1990s, the **encryption** industry slowed down as companies
debated legal technicalities for licenses and patents. Today the messaging
...

...is plowing ahead with new products instead of waiting for the legal
battles to subside.
   Encryption is becoming a battleground as companies stake out turf in
the electronic commerce market. Battles over **encryption** are more urgent
as **encryption** vendors strive to make their algorithm the industry
standard.
   For instance, two weeks ago, Mountain...

...Microsoft Corp. announced shipment of a browser integrated with secure
multipurpose Internet mail extensions.
   Similarly, **encryption** products using the Elliptic Curve Crypto (**ECC**
) algorithm are looming on the horizon. Certicom Corp., based in Toronto,
is developing products using **ECC** in electronic commerce applications.
   Armonk, N.Y.-based IBM Corp. announced last week theoretical
break-throughs on new **encryption** algorithms, which may spur a new round
of inno-vation, even though usable products are...

...new version of PGP will be algorithm independent, meaning it can support
a variety of **encryption** algorithms.
   RSA's tool kit already is algorithm independent, Bidzos says.
   Encryption software used to be free, but its rapid commercialization
lies at the heart of the...
PRODUCT NAMES: *7372691   (Data **Encryption** Software)

   14/K/14   (Item 7 from file: 16)
DIALOG(R)File 16:Gale Group PROMT(R)
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04756435   Supplier Number: 54764783   (USE FORMAT 7 FOR FULLTEXT)
DiGitaL VeRsaTilE DeliriuM.(Company Business and Marketing)
WRIGHT, GUY
Interactivity, v2; n12, p53
Nov, 1996
Language: English   Record Type: Fulltext
Document Type: Magazine/Journal; Trade
Word Count: 3199

...   from charging ahead), that almost no one is offering DVD
development tools, and that no **duplication** house currently mass produces
DVD discs. At such an early stage in the history of...

...substrate bonded together in a sort of DVD sandwich, an arrangement
called DVD-9. Information **encoded** in the second layer bumps capacity up
to 8.5GB. By refocusing its laser, a...

...of eight separate audio tracks or 32 subtitle channels, plus low
projected cost for disc **duplication** compared to video cassettes, and you
have a nearly ideal format for movies.
    While the...
...5,000 to join the DVD Consortium -- currently the only way to get a
legal **copy** of the spec. It's debatable how much good the spec will do you
if...how to license all the relevant bits and pieces. It may turn out that
disc **duplicators** and those who manufacture players will shoulder the bulk
of the license charges, adding to...

...such as Dolby AC-3. (A license to decode AC-3 is free to the **user**, but
a **license** to **encode** is not.)
    In an effort to consolidate their own licensing fees, Sony and
Philips have...

...the Motion Pictures Experts Group, creators of MPEG. The Group has
deemed that MPEG-2 **encoded** on DVD won't be free. It'll probably cost
$0.04 per disc.
    To...

...even interactivity. But they're also worried that clever movie pirates
will be able to **duplicate** byte-perfect black-market **copies**. The same
issue stalled the release of DAT in the U.S. a few years...

...ultimately killed it as a consumer product).
    Solutions supported by the movie industry include charging
duplicators ahead of time for projected losses (an idea that only the
movie industry likes) and requiring manufacturers of DVD players to build
in **copy** protection. The MPAA (Motion Pictures Association of America) and
CEMA (Consumer Electronics Manufacturers Association) have submitted to
Congress a draft of proposed legislation that requires **copy** protection
hardware to be built into any device capable of playing linear video
streams. **Copies** of the draft are not publicly available and the precise
technology hasn't been revealed...

...player. Or, if they can figure out a way to do it, discs will be
encoded with a date before which they won't play in a particular country.
This is...

...and SECAM players will use MPEG-2 audio. Of course, there will be a
separate **license** fee to **use** either algorithm.
    At the moment, pro-**copy** protection forces lean toward a zoned
approach. The U.S. might be zone A, Canada...

...board with MPEG-2 and AC-3 decoders. Where does this place the onus for
copy protection hardware? On the DVD-ROM player manufacturer? The computer
manufacturer? The board manufacturer?
    Regardless...
...content developers should have some way to protect their interests and
that some form of **encryption** or **copy** protection should be employed. But
every day that goes by without a solution that everyone...initially was
proposed, everyone thought the first wave of titles would be movies. But

with **copy** protection still up in the air, infighting among the entertainment industry giants, and the high...

...DVD-ROM. Estimates are that it will cost from $40,000 to $72,000 to **encode** a feature-length film on DVD. That's for each stream, by the way, so...

...joining the DVD Production Alliance with the intention to provide DVD developer services such as **encoding** . (The DVD Production Alliance is not to be confused with the DVD Consortium.) The Alliance...

...and Daikin Industries, is a group of post-production facilities, manufacturers, studios, title developers, and **duplication** houses striving to create standards and ultimately DVD titles. At this moment, if you want ...

...to cost $250,000 to $400,000 or higher and to include an MPEG-2 **encoder** /decoder board, high-end video and audio gear, a few Macs and an SGI or...
...also need a DLT (digital linear tape deck) to record data to send to a **duplicator** when you're ready to cut a disc.
    Will you, after shelling out that $400...

...best of your ability, you put the data on tape and send it to a **duplicator** . The **duplicator** sends back a master days or weeks later. It's just like the bad old...

...which supports long filenames, international character sets, and a few other goodies) and a new **error correction** scheme called advanced RS-PC (Reed Solomon Product **Code**). This means the pre-mastering software and recorders, when they're available, will have to...

...the drivers that translate 1SO 9660 into computer-speech).
    If you have an MFEG-2 **encoder** , you should be able to create DVD streams simply by constraining frame sizes, rates, and...and AC-3 decoder cards may offset the difference).
    Nonetheless, DVD has major hurdles ahead. **Copy** protection is still an issue and the solution may prove less than palatable. Until the...

14/K/15   (Item 1 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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>>>Accession number 11670604 is unavailable

14/K/16   (Item 2 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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09888657   SUPPLIER NUMBER: 20012887   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Intranets take center stage at Comdex. (Comdex-Fall '97) (Industry Trend or Event)
InternetWeek, n690, p59(8)
Nov 17, 1997
LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 6174   LINE COUNT: 00577

...   an ISP to the user, the delivery of Internet information is dramatically faster. Plug-and- **play** automatic installation gets you online **right** away. The DataLink 56K is compatible with most PC operating systems

including Windows 3.1x...

...MAC and pipeline systems. SecureConnect offers NCSA-certified dynamic
firewall protection with support for IPS **encryption** and authentication,
Radius database management, PAP/CHAP and other security provisions. A
Personal Edition is...a 233-MHz or 266-MHz Pentium II processor with 256-KB
or 512-KB **ECC** L2 cache, and is SMP-upgradable with a second matching
processor. The 330 ships with...

...power of up to 233-MHz or 266-MHz Pentium II processors with 256-KB **ECC**
L2 cache.
    IBM Personal Software Products Division
    Austin, Texas
    800-426-4329
    512-823-0000...

...one system. IBM Firewall V3.1 offers a new Java-based
interface--including 56-DES **encryption** for export outside the United
States--an advanced testing tool to report on potential security...

...client for PC-to-Firewalls virtual private networks (VPNs) and a
centralized management feature to **encrypt** data that is used between the
PC and the firewall. IBM also plans to support...

...includes Domino Web application server, a choice of five Lotus Notes
clients or Web browser **licenses** , and 12 ready-to- **use** , horizontal
business applications. It is secure, ODBC-compliant and scalable.
    Lucent Technologies
    WaveLAN Group
    Murray...to the Integrated Services Digital Network (ISDN) in
addition to the security of CHAP, an **encrypted** challenge/response
authentication protocol. Racal's Data Group Excalibur ISX 5312 E-1 and ISX
...developers the tools to build and manage dynamic Web sites. SQL Remote's
message-based **replication** technology supports automatic, transparent
synchronization of SQL Anywhere databases. SQL Anywhere Professional also
includes InfoMaker...control security for the documents they own. They also
can create and maintain their own **access** **rights** groups. What's more,
users can easily search and retrieve documents either by text, by...

 14/K/17   (Item 3 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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09832720   SUPPLIER NUMBER: 18111421   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Chip sets and MMICs ease short-haul RF-link design. (monolithic microwave
  integrated circuits; radio frequency)(Cover Story)**
Schweber, Bill
EDN, v41, n4, p46(7)
Feb 15, 1996
DOCUMENT TYPE: Cover Story   ISSN: 0012-7515   LANGUAGE: English
RECORD TYPE: Fulltext; Abstract
WORD COUNT: 4433   LINE COUNT: 00399

...   as high as 5.7 GHz. Many short-haul RF links in the United States
use the **license** -free industrial, scientific, and medical (ISM) bands at
902 to 928 MHz, 1.8 to...

...Although you must to study the latest versions of these rules, some RF
vendors provide **copies** of relevant sections or summaries of US rules

(Title 47, parts 2 and 15), as with relatively little data **encoding** or manipulation, many vendors offer ICs that incorporate nearly all the circuitry for a transmitter...

...devices' functions. You may want to concentrate your design efforts, for example, on the data **encoding** and use front-end ICs from a chip set. This approach lets you focus on...varying levels of channel noise. To overcome these enemies, system designers use two techniques: data **encoding** for error detection and correction (EDC), and spread-spectrum modulation.
  Data **encoding** for forward error correction, a well-established, all-digital technique, adds redundant bits to your...deviate from nominal values. Equally important, these tools show the effects of modulation schemes and **error** -detection and - **correction** **codes** and changes in transmission power, distance, and receiver-noise figures.
  RELATED ARTICLE: LOOKING AHEAD
  Much...

14/K/18 **(Item 4 from file: 148)**
DIALOG(R)File 148:Gale Group Trade & Industry DB
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09070556   SUPPLIER NUMBER: 18743430   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Tools of the audio transfer trade: audio utilities for CD-ROM and CD-R.
  (compact disc read-only memory; compact disc-recordable)(includes related
  articles on encoding **and extracting, Disc-at-Once, audio player**
  software and CD-to-CD audio copying **)**
Starrett, Robert A.
CD-ROM Professional, v9, n10, p101(10)
Oct, 1996
ISSN: 1049-0833   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract

WORD COUNT: 5376   LINE COUNT: 00404

...and CD-R. (compact disc read-only memory; compact
  disc-recordable)(includes related articles on encoding **and extracting,**
  Disc-at-Once, audio player software and CD-to-CD audio copying **)**

...ABSTRACT: available CD-R software includes audio recording capability through straight forward procedures. Audio transfer and **copy** utilities are discussed in detail.
  ...   one of CD-R's more pleasant surprises is that certain types of digital audio **duplication** are among the simplest and most straightforward procedures in the format's increasingly formidable bag...
...combinations for the professional sound engineer, and together, they comprise a rich palette of audio **copy** and manipulation capabilities that serve a vast range of editing and recording functions.
  AUDIO TRANSFER...

...aside, making an audio CD collection on CD-R can be just plain fun.
  To **copy** from analog tape, or to **copy** from an audio CD in an analog manner, you need a 16-bit stereo sound card, a tape input device, and an audio **copy** utility such as Voyetra's WinDAT, Digital Audio Labs' Fast Eddie. There are numerous such packages available, both for **copying** and editing WAV files. Unfortunately, Sound Recorder the Windows and Windows 95 sound utilities suite...

...produce some pretty good recordings from analog tape.
  Extracting and Recording Rituals: The Basics
  Whether **copying** from tape (reel-to-reel or cassette) or CD, analog

and digital audio extractions are...

...the most common used in audio extraction and recording. Most CD-R programs convert and **copy** WAV files to audio tracks. Waveform files that are not produced in 44.1KHz 16...
...best, the digital-to-digital process will yield discs that are on par with the **replicated** audio CDs sold in music stores. To create a truly digital disc, you need digital process of **copying** CD-DA audio tracks digitally, either over the SCSI bus to hard disk or directly...

...or EIDE CD-ROM drives. In some scenarios--still rare at this juncture--users can **copy** directly from audio CD to CD-R.
        Assuming that your CD-ROM drive or recorder...

...want to pull tracks from, naming the WAV or AIFF destination files, and clicking on " **Copy** " or "Extract." Most recording programs do the rest of the work for you, but if...

...from a digital source and allow such wizardry as simultaneous stereo record and playback.
        AUDIO **COPY** AND MANIPULATION UTILITIES: THE AUDIO RECORDING ROLL CALL
        Although most CD-Recordable software reads and...

...At-Once recording is more important to some users than others. When recording for audio **replication** , Disc-At-Once is a must. If you ore recording for personal use or recording...
...when they run under the read head The potential for problems has caused some disc **replicators** to refuse discs written Track-At-Once as input media for mastering, since it generally...

...will be recording, but that is a workaround that may not be practical.
        RELATED ARTICLE: **Encoding** and Extracting Essentials: How Audio Gets on and off CD
        The audio compact disc that...

...Compact Disc-Digital Audio (CD-DA) The Red Book called for the discs to be **encoded** in sectors of 2,352 bytes of data and addressed in minutes, seconds, and sectors...Audio disc has an additional 882 bytes, 784 of which are used for the audio **error**   **correction**   **code** , Cross Interleave Reed-Solomon **Code** (CIRC). The remaining C78 bytes are control bytes that hold certain other information concerning the...

...the audio is beginning and the Q subchannel contains time codes and such information as **copy** -prohibit and pre-emphasis information, CD catalog code, and ISRC information. This information becomes important...

...has a one-bit identifier in the Q subchannel that indicates whether the track is **copy** -prohibited. This bit can be implemented by recorders to prevent **copying** of the track Pre-emphasis is a high-frequency boost, necessary when digital to analog...

...CD-DA allows full PQ sub-code editing. It supports Catalog Number, ISRC-Code, Digital **Copy** Prohibit, and Pre-Emphasis.
        Toast CD-DA supports most recorders, including the Kodak PCD 600...

...the Kodak Disc Transporter.
        Optical Media International's Disc-to Disk: The Cream of the **Copying** Crop
        The Windows version of OMI's Disc-to-Disk allows you to capture

digital...

...Time, Creative Labs VOC, Macintosh AIFF/AIFC, and Raw PCM.
     The program allows direct digital **copying** ofaudio so that there is
no potential for the introduction of noise as there would...current read
and resynchronizes the data stream if necessary.
     Disc-to-Disk also allows various **copy** , view, and play operations.
You can **copy** from audio CD to hard disk, of course, but you can also
preview a track from CD, view the waveform itself, **copy** audio to the
clipboard, play audio from the Clipboard, and play preexisting WAV files.
     Disc...
...Time, AIFF/AIFC, Sound-Designer II, SND, and Windows WAV. The program
allows direct digital **copying** of audio to prevent the unwanted noise of
analog to digital conversions.
     The Jeff Arnold...

...to extract tracks from audio CDs. Jitter control is performed to ensure
that the digital **copy** is correct. The program supports most CD recorders
and many CD-ROM drives that perform...

...you to specify start and end times in either Ptime or Atime, and lets
you **copy** by specifying the track number to be **copied** . The program can
also be appended to an existing file, which lets you choose which...

...as the ability to define and insert sub-indexes within a track.
     CeQuadrat's CD **Copy** : Freeware WAV-File Functionality
     CD **Copy** is a freeware Windows utility from CeQuadrat that **copies**
CD-Audio tracks to your hard disk as WAV files in 44.1KHz stereo, 22...

...to the audio while it is being transferred to hard disk.
     AUDIO CD DUPERS, ACHTUNG; **COPY** WITH CONSCIENCE AND CARE
     The path breaking proliferation of audio CD **copying** and
manipulation utilities and audio- **copying** -capable CD-Recordable software
is a modern marvel. However, the relative ease and inexpensiveness of
copying tracks and even full discs gives none of us license to violate the
copyright of...

...Act of 1976 and all amendments thereto, including the Home Recording Act
of 1992. Certain **copying** , under the Fair Use doctrine and certain
copying for personal use may be permitted, depending on the circumstances.
     A full examination of this...

...medium and the evolution of CD-Recordable technology to the point where
CDs can be **copied** so easily and cheaply.
     CD-R users should be careful to abide by these rules...

...the growing popularity of CD-R for audio recording and the increased
functionality of audio **copy** programs--in spite of their many acknowledged
legitimate uses--have caused some stir in the...

...comes to be regarded as a threat to the music industry's income stream.
     So **copy** with care, follow the rules, and enjoy the capability that
CD-R has placed in...

...4.0 from BIG 3 Software. Hitline includes such features as an edit
function for **copying** to tape, disc indexing, a mini control panel,
external program calling, a graphic equalizer, direct...

...The program also features complete and comprehensive help.
     RELATED ARTICLE: Direct CD-to-CD Audio **Copying** : Proceed with

Caution and Patience

CD-to-CD **copying** of digital audio tracks is at once among the most titillating and mast troublesome aspects When **copying** directly from CD-ROM to CD-R, the source drive must usually be faster than the destination recorder to ensure successful **copying** . For instance, if you are using a 2X recorder, your source CD-ROM drive must...

...a source drive of 6X or faster. There are exceptions, however. Direct 4X-to-4X **copying** is possible, but only on data sets that weigh in under a certain megabyte limit. The peer drive to peer drive **copying** ceiling varies with the capabilities of both the hardware and software used. On my system, 120MB can be **copied** directly at 4x, but 600MB cannot. Although it clearly falls somewhere in between, I have yet to determine my system's upper limit.

Direct audio **copying** puts even more strain an your system than disc-to-disc duping of CD-ROM...

...your system is close to the edge already on CD recording performance, direct CD-Audio **copying** will prove quite problematic.

But the problems of direct audio **copying** go beyond just data transfer rates. Direct audio **copying** will likely show other weaknesses in your system. When put to the task, CD-ROM...

...CD Creator 2 and Adaptec's Easy-CD Pro 95, offer direct CD-to-CD **copying** as a specific function. In the case of CD Creator, a separate program called CD **Duplicator** will **copy** audio CDs, calling CD Creator to do the job after the recording session is set up in **Duplicator** . After several attempts in test made using a Yamaha CDR 100 as destination and a
...

...source and a Kodak PCD 225 as destination, I was able to produce a direct- **copy** disc. But my disc-to-disc delight was quickly muted when I sat back to...

...looked normal, and consequently this mystery remains unsolved. In a determined attempt to get it **right** , I tried again **using** a Sony CDU 920S as source and a Philips CDD 2000 as destination. This combination worked on the second try and produced a correct **copy** of the audio CD with Creators CD **Duplicator** .

Using this same setup, I tackled the task with Easy-CD Pro 95. Choosing CD-to-CD **copy** , the program correctly identified the source as an audio disc with ten tracks But when...

...to record, it repeatedly returned the error "Source CD not found." Adaptec technical support quickly **replicated** the error and acknowledged a bug in version 1.1 that applied only to recorders...

...not over yet. Success looked imminent when the program tested and approved the direct audio **copy** at 2X. I left it unattended with instructions to retest, and then write if successful...

...times without problem. Feeling confident now, I told the program to record and it successfully **reproduced** the ten-track audio disc.

Considering all that happened, what was successful and what was...

...because of known incompatibilities. The conclusion chat I draw from all this is that direct **duplication** of CD audio discs is, at present, unstable in certain equipment configurations. There are likely certain drives, recorders, and media chat will reliably and consistency perform the direct CD audio **copy** , but finding chat combination will take same experimentation If you do find such a setup...

14/K/19   (Item 5 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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08932422   SUPPLIER NUMBER: 18553244   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**DVD: the update: among licensees of a format not even finalized, there are
 plans for copious amounts of DVD product for Christmas season release,
 but also ample cause for anxiety throughout the developer world. (Digital
 Video Disc or Digital Versatile Disc)(includes a related article on
 modulation)**
Parker, Dana J.
CD-ROM Professional, v9, n8, p68(12)
August, 1996
ISSN: 1049-0833   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 4347   LINE COUNT: 00376

...ABSTRACT: to the public. Products, such as movies-on-disc, will be
revolutionized with DVD's **encoding** scheme.
...   to be bedrock knowledge for developers.
     Perhaps the most technologically dazzling new revelation is an
encoding scheme for dual-layer DVD that allows the layers to be mastered
with reverse, inside...

...IN THE USA
     On April 10 and 11, 1996, the ten companies who own technology
licenses that will be **used** in the DVD format hosted the First DVD Forum
in the USA. The conference was...08Mbps

Track pitch	0.74mm
Recording modulation	8/16 Modulation
Sector size	2,048 Byte
Error correction code	Reed Solomon Product **Code**
ECC constraint length	16 Sectors (= 32 Byte)

     The capacity for a single-layer disc remains 4...video is no longer as
simple as recording a linear movie on VHS tape or **encoding** a video clip
as a file. Even if none of the available interactive functions are used,
the process of authoring a DVD Video title requires video and audio
preparation, **encoding** , authoring, and image generation. The producer of a
DVD Video title must make decisions about...

...picture information to be included on a given disc. In some cases, such
as MPEG **encoding** -related issues, these decisions must be made very early
in the process. One licensee, Sonic...

...frame is an I-Frame, while a GOP of 15 indicates that the data is
encoded in an MPEG-2 video stream in which every 15th frame is an I-Frame
process. For one thing, **encoding** MPEG-2 is tedious and extremely
time-consuming. In real-time, this means ten hours of processing for every
hour of video. In short, MPEG-2 **encoding** is something that should
preferably be done once and once only for any given set...

...Association have reached a "verbal pact" on the intent, if not the
implementation, to enforce **copy** protection by building it into DVD
hardware. These two organizations seem to have rather blatantly...

...which represents their interests. Not that the computer industry won't
be affected by whatever **copy** protection scheme evolves for DVD--they
will. The computer industry was simply not asked for...

...   one-shot, non-recirculating piston-metering systems.
    LINDEN INDUSTRIES, INC.
    Proprietary equipment designs and also **licensed** to manufacture
Elastogran line of Puromat standard and custom plural-component systems.
Specializes in:
    * Turnkey...motor pump, and catalyst slave system. Mounts on 5-gal
pail or wall; can be **used** with saturator or resin-roller attachments.
    GUSMER, DIV. OF PMC INC.
    Variable-ratio DeltaRim impingement...

...of curing the preform binder with either microwave or uv energy. Curing
energy is applied **right** in the forming tool, which has a plastic skin
that is transparent to both forms...mix thermosets such as epoxies,
urethanes, or polyesters. Mixer features a series of left- and **right** -hand
spiral elements with knife edges. This patented-feature is said to ensure
longer life...turn-around prototyping to high volume, multicavity
production.
    ACCURATE MOULD CO.
    EDM facilities, engraving and **duplicating** . Conventional edge gate,
hot-runner molds, and mold design. Jig boring, gun-drilling, and surface...
for thermoplastics. Also structural foam tools. Industries served include
electronics, housewares, automotive, and dairy. Engraving, **duplicating** ,
polishing and repair services.
    APAC INDUSTRIAL CO. LTD.
    Molds from Hong Kong reportedly save tooling...

...10 tons. Also molds for small machines. Five-axis CNC EDM, CNC machining
centers, and **duplicating** equipment, including mirror-image capability.
Full design services plus finishing and assembly for business-machine...

...tooling available. Product engineering, mold design and repair, model
making, cavity casting, hobbing, engraving, and **duplicating** .
    HARRY L. BRAUN CO.
    Complex-action, close-tolerance molds to 4000 lb for electronics,
medical...unscrewing closures and other packaging components. Three tool
shops and complete design facilities. Automatic cavity **duplication** , 2-D
tracer lathes, EDM, precision-forming grinders, tape-controlled lathes,
jig-boring machines and...

...MOLD CORP.
    Molds for thermoplastic and thermoset injection molding. Mold design
and repair, engraving, and **duplicating** .
    COLONIAL MACHINE CO.
    Injection molds primarily for housewares, appliances, business
machines, and materials handling. One...

...assemblies.

COMET DIE & ENGRAVING CO.

Injection molds for thermoplastics and thermosets. Hobbing, texturing, engraving, and **duplicating** . CAD/CAM, design facilities, and pattern shop to make models for **duplicating** .

COMET TOOL CO., INC.

High-precision, close-tolerance injection molds for thermoplastics. Serves consumer and...mold design.

DIETOOLING CORP.

CAD designs, builds, and repairs small- to medium-size molds. EDM, **duplicating** , welding, CNC milling, and close-tolerance CNC contour turning to Rc 60. Mold component and...

...Systems accept all major automotive formats, including full IGES, and are totally integrated with CNC **duplicators** and boring mills.

EUCLID ENGINEERING CO.

Complete moldmaking services from design to finished part for...

...machines with 1- to 30-oz capacity. Contour work is a specialty. EDM, hard chroming, **duplicating** , and CNC machining.

FERLAND MOLD CO. INC.

Specializes in precision, high-production, automatic molds, primarily ...

...computerized applications, rapid prototyping, in-plant mold tryouts, models, prototype tooling, beryllium-copper castings and **duplicating** patterns, finishing and cast cavities. Equipment includes high technology CAD/CAM equipment. Ability to link...

...CAD/CAM design and programming, continuous-tape equipment (32 x 72 in. capacity), 3-D **duplicating** , CNC machining, EDM, benching, polishing, and die welding. Industries served include automotive, toy, computer and...and unscrewing molds. Precision grinding, milling, CNC machining and validation, CAD/CAM, deep-hole drilling, **duplicating** , and EDM. Molds for insert and structural-foam molding. Product development and mold-testing facility...

...off-road equipment, and business machines. In-house product development, mold tryout, model making, and **duplicating** .

HASCO-INTERNORM CORP. WEST

Daughter company of Hasco-Normalien of Germany offers standard mold bases...

...molds for thermoplastics and thermosets. Automatic tools, product engineering, mold repair, model making, engraving, and **duplicating** .

HUSKY INJECTION MOLDING SYSTEMS LTD.

Designs and builds hot runners and molds, specializing in thin...

...wire EDM, as well as ample complement of milling, grinding, turning, boring, cutting, profiling, and **duplicating** machinery. Product development, mold repair, tryout, and debugging.

JOWA ENTERPRISES INC.

Designs and manufactures molds...

...wall applications.

R.C. KING MOLD & MACHINE

Designs and builds injection molds. Mold repair and **duplicating** services.

KINGSTON PLASTICS CO.

Designs and builds injection molds and complete turnkey systems for

automotive...sizes up to 36 x 54 in. and weights up to 5 tons. CNC, EDM, **duplicating** , welding, mold repair, design, and tryout.
    LIBBY-OWENS-FORD CO.
    See Modern Tools Div.
    LIBERTY MOLD & **DUPLICATING** CO.
    Designs and builds precision injection molds for thermoplastics and thermosets. Prototype tooling, multicavity production...

...and cores, hot-runner systems, and automatic unscrewing molds. CAD system, CNC machining, EDM, hobbing, **duplicating** , engraving, mold repair, and mold polishing. Industries served include closures, electrical, medical, cosmetic packaging, photographic...

...from cast and machined aluminum or chrome-plated, heat-treated steel. EDM, CNC, CAD/CAM, **duplicating** , pantograph, and standard tool-room equipment.
    MAJESTIC TOOL & MOLD LTD.
    Manufactures and repairs injection molds...

...molds for injection molding thermoplastics. Automatic tooling, product engineering, repair, tryout, engraving, model making, and **duplicating** .
    MINCO TOOL & MOLD INC.
    Product design, mold design, mold building, validation of tooling, molding, and...

...tooling. Short-run tools also manufactured. Product development, mold repair, tryout, model making, engraving, and **duplicating** .
    MODERN TOOLS DIV. LIBBY-OWENS-FORD CO.
    In-house design with CAD/CAM. Die models, fixtures, epoxy tooling, special machines, and molds for thermoplastics and thermosets. Large CNC **duplicators** , orbital EDM, 60-ton crane capacity, three coordinate-measuring machines, and six CAD/CAM stations...

...large or multiple-tool projects plus followup of secondary tooling, soft prototype molds, master models, **duplicating** casts, fixtures, gauges and tryouts. In-house CMM checking for quality assurance of tools or...purpose injection molds for thermoplastics. Prototype, multicavity, and hot-runner tools. Product development, model making, **duplicating** , and sampling on 200- and 300-ton molding machines.
    NORVAN TOOLS LTD.
    Specializes in injection...

...food packaging, and automotive industries. Automatic molds for thermosets. Product development, mold repair, tryout, and **duplicating** .
    OMEGA TOOL INC.
    Designs and builds small to medium-size close-tolerance, multicavity, and automatic...

...either are sculpted in 3-D or have matched plates. Sculpts artwork by either deckel **duplicating** or pantographing, or 3-D electrodes for EDM.
    PELCO TOOL & MOLD, INC.
    Manufactures single- or...

...unscrewing, automatic and hot-runner molds. CNC machining and CAD. Repairs, model making, engraving, and **duplicating** .
    PLAS-TOOL CO.
    Injection molds for round and square industrial containers and closures from quart...small to medium-size molds for automotive, electronics, toys, hardware and housewares. EDM, engraving, and **duplicating** . All shapes and configurations, including hot-runner and

thin-wall containers.
     SARCOL INC.
     Molds made...

...cost less, take less time to deliver, and last longer than tooling made
on conventional **duplicating** machines.
     SCHOTTLI USA
     Swiss mold manufacturer designs and builds semi- and full hot-runner
molds...

...capabilities for workpieces to 8 x 16 ft and 100,000 lb. CNC and tracer
copy -milling machines, EDM, CNC radial-gun-drilling machines, jig
internal-cylindrical-surface grinders. Also spotting...

...volume applications. Also high-technology tooling such as expanding
high-pressure structural foam molds, CNC **duplication** on Pratt & Whitney
equipment, and line of mechanical quick-mold-change components.
     SHORT-RUN PLASTICS...

...large parts like chairs and tractor hoods. Product engineering, mold
repair, tryout, model making, and **duplicating** .
     SOLVAY AUTOMOTIVE, INC.
     Hot-runner and three-plate injection molds for up to 1500-ton...

...and manufactured using CAD, CNC, and EDM. Product engineering, mold
design, repair, tryout, engraving, and **duplicating** .
     SPRINGFIELD TOOL & DIE CO. INC.
     Specializes in molds for small machines (e.g., 1-oz...

...industry, and multicavity, hot-runner, and short-run/prototype tools as
well. Hobbing, engraving, and **duplicating** . Injection machines up to 300
tons for mold trials.
     STAN-CAST, INC.
     Specializes in molds...thermoplastics and thermosets. Specializes in
cam-action and automatic tooling. Mold repair, tryout, engraving, and
duplicating .
     TETRAD MOULD & TOOL LTD.
     Designs and builds injection molds for thermoplastics and thermosets;
cold-, hot...

...CNC machining. Automatic and short-run tooling, product development,
mold design, repair, tryout, engraving, and **duplicating** .
     TOG MOLD TOOL & DIE CO., INC.
     Designs and builds thermoplastic and thermoset molds for machines...
...low-volume prototype tooling. Product development, model-making, cast
cavities, hobbing, EDM, CNC machining and **duplicating** . In-house
polishing, precision grinding, mold conversions, and repairs.
     Uses Master Cam 386, which allows...of aircraft-grade aluminum or
steel in sizes from 6 oz to 5 gal. Models, **duplicating** , EDM, CAD, mold
design, construction, repair, and prototype development.
     CAPTIVE PLASTICS, INC.
     Specializes in injection-blow molds for containers and specialty
parts. Design facilities, **duplicators** , tracer lathes, precision-forming
grinders, EDM, jig-boring machines, and pantograph engraving equipment.
     CENTURY DIE...

...beryllium-copper, and lamina bronze. Product development, mold repair,
model-making, cast cavities, engraving, and **duplicating** .
     ITALIAN TRADE COMMISSION
     More than 150 Italian companies manufacture extrusion and injection

blow molds for...

...operation is computerized.
     R.C. KING MOLD & MACHINE
     Designs and repairs injection and blow molds. **Duplicating** services
available.
     KNIGHT TOOL WORKS LTD.
     Extrusion and injection-blow molds, both production and prototype...

...Blow molds made from aluminum, beryllium-copper and a full range of
steels.
     LIBERTY MOLD & **DUPLICATING** CO.
     Specialized maker of small injection-blow molds.
     LOWRY MFG., INC.
     Blow molds with cut **duplicated** cavities, EDM, and cast cavities.
     MODERN TOOLS DIV. LIBBY-OWENS-FORD CO.
     Medium-size to...via 3-D CAD/CAM. Molds built with CNC machining
centers, digitizers, and multi-spindle **duplicators** . Accessories such as
dies, mandrels, blowpins, cutters, and trim tooling, as well as trimming
and...

...ducts, gas tanks), and display cabinets.
     STAN-CAST, INC.
     Complete moldmaking facility with CNC EDM **duplicating** and foundry to
cast tool steel, aluminum, and beryllium-copper. Ceramic and pressure
castings also...

 14/K/21   (Item 7 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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08045009   SUPPLIER NUMBER: 17120283   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Johnson-Grace offers free trial copies **of its multimedia authoring tools**
  for publishers on the company's new Web site; permits high-speed online
  delivery of graphics, photos.
Business Wire, p8011022
August 1, 1995
LANGUAGE: English   RECORD TYPE: Fulltext
WORD COUNT: 785   LINE COUNT: 00078

Johnson-Grace offers free trial copies **of its multimedia authoring tools**
  for publishers on the company's new Web site; permits...

TEXT:
     NEWPORT BEACH, Calif.--(BUSINESS WIRE)--Aug. 1, 1995-- Johnson-Grace
Co. is offering free trial **copies** of its ART Press high-speed publishing
software and will provide technical support for all...
...   Windows environments which facilitates high-speed transmission of
images over regular phone lines. Using the **encoder** included in ART Press,
publishers can compress photos, icons and other screen artwork for their...

...to classify each component of a picture or graphic. This built-in
"intelligence" enables the **encoder** to apply the best compression method
automatically to any type of image, whether graphic, photographic...

...wanting to create ART content for display over the Internet can obtain a
free trial **copy** of ART Press by visiting Johnson-Grace's Web site and
applying for the company...

...an enrollment form, publishers receive by e-mail instructions on how to download a free **copy** of the latest version of the ART Press software. The software includes Johnson-Grace's ART-based **encoder** , image editor and playback preview feature. Enrolled publishers also are entitled to free technical support...

...commercial publishers and the ART Player (decoder) to online services and Web browsers.
      The ART **Player** is currently **licensed** to America Online (AOL), for its client software and the recently introduced TurboWeb Browser; and...
...includes technology invented by Dr. Irving Reed, co-inventor of the industry-standard Reed-Solomon **error** **correcting** **codes** , which are used in audio CDs, CD-ROMs and other digital equipment.
      Johnson-Grace is...

14/K/22   (Item 8 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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07961672   SUPPLIER NUMBER: 17080822   (USE FORMAT 7 OR 9 FOR FULL TEXT)
High-density & re-inventing the disc. (includes related articles)
Parker, Dana J.
CD-ROM Professional, v8, n6, p20(11)
June, 1995
ISSN: 1049-0833   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 7048   LINE COUNT: 00560

...   a difference in the overhead on the disc used for error correction and detection, video **encoding** algorithms, and channel coding, or modulation. The higher average data rate of the Time Warner...

...overhead is unknown. Philips/Sony proposes an enhanced version of CIRC (Cross Interleaved Reed Solomon **Code**) for **error** **correction** , called both "CIRC+" and "Diamond +" by the companies. Time Warner/Toshiba proposes using "RS-PC...systems
      * Ability to accommodate three to five languages on one disc
      * Commitment to an unspecified **copy** protection system
      * Multiple aspect ratios to allow for future widescreen markets
      * Multiple versions of the...development, quality assurance, WEA Manufacturing, Inc., the Time Warner-owned CD-audio and CD-ROM **replication** facility, also confirms that there will be a delay when switching sides, no matter what...The second data layer is formed by using a radiation-curable photopolymer commonly used to **replicate** laser videodiscs. The remaining processes are the same ones currently used in compact disc manufacture...

...stations integrated into a standard CD manufacturing line. "It would be possible to set a **replication** line for single layer, single or high-density discs in the morning, and reconfigure the same **replication** line for dual-layer, high-density discs in the afternoon," comments Rosenberger.
      The Time Warner...

...together for a finished disc.
      With the DVD approach, even if the disc to be **replicated** only required one side for the data size (i.e., were only half full of...because of the copyright issues involved, but also because of the cost of MPEG-2 **encoders** . MPEG-1 **encoder** hardware currently on the market costs up to $30,000 (MPEG-2 **encoders** are not commercially-available yet at any

price). Wink Saville, of Saville Associates, predicts that pre- **encoded**
digital content - audio, video, and data - will be available from online
services before MPEG-2 **encoder** costs come down far enough to make in-home
digital video **encoding** and recording affordable.
    Licensing Issues: Paying The Piper
    One issue that is common to all...

...third to Philips in the form of royalties. CD drive manufacturers also
pay Philips a **license** fee; in the case of **players** or drives, the fee is
between 2% and 3% of the manufacturer's price of...the logical realm, where
one can increase the amount of "user data" allocated in the **encoding**
method. Channel coding, which describes the way the data is actually coded
onto the physical...

...in CD-ROM formats. Eight-bit words are translated into fourteen-bit
words which makes **encoding** pits and lands to the physical media more
efficient and less prone to error.
    The...   '

 14/K/23   (Item 9 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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07758985   SUPPLIER NUMBER: 16692725   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**Databases for everyone. (Alpha Software Corp's Alpha Five, Microsoft Access
  2.0 and Borland International's Paradox for Windows 5.0 windows
  programmable databases) (includes related articles on a results summary,
  database books, locking conflicts, ODBC vs. OLE, and test methodology)
  (Software Review)(Evaluation)**
Ribal, Gil; Johnson, Amy; Carreon, Julia C.
InfoWorld, v17, n12, p70(13)
March 20, 1995
DOCUMENT TYPE: Evaluation   ISSN: 0199-6649   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 11242   LINE COUNT: 00872

...   in as a major distribution channel. The big players got bigger, and
the small players **scrambled** for a safe product niche. In 1994, database
companies learned the meaning of the ancient...

...has been abandoned by all but its most die-hard fans. Borland shipped
693,271 **copies** of dBase for DOS in 1993 and only an estimated 190,000
copies in 1994. Shipments of dBase for Windows appear to have taken up the
slack, numbering...
...have migrated from dBase for DOS have switched to another Windows
programmable database, like Microsoft **Access** .
    THE **RIGHT** TOOL FOR THE JOB. Within large organizations, Windows
programmable databases are often used for smaller...data, which added
transmission times to Alpha Five's results.
    Alpha Software gave us a **copy** of the Alpha Five 1.0a upgrade (due by
the end of March), because they...

...like the trend to put information on-line, but we still want to receive
hard- **copy** manuals for convenience.
    In addition, we find that hard- **copy** documentation for installation
and configuration is vital. We' ...The on-line documentation won't help
fill in the gaps, because it's a **replica** of the hard- **copy** manuals. This
package needs a programmer's reference manual with detailed explanations of
the Xbasic...

...Microsoft Access 2.0: Very Good

Access's on-line documentation exceeds its extensive hard- **copy** manuals; we found instances in which the on-line format had better information than the...

...line help; if you buy the Access Developer's Toolkit, you'll get the hard **copy** .

Paradox 5.0 for Windows: Very Good

Paradox 5.0 does not ship with a...The Xbasic reference manual was especially terse. The on-line help was a ho-hum **copy** of the printed documentation.

Support (75) Good 46.87 The technicians had trouble answering questions...

...426-9400

(206) 822-8080

(Weighting) Performance

Data definition and manipulation (25) Excellent 25.00 **Access** provides all the **right** data dictionary capabilities. Wizards make table creation especially easy. We liked being able to manipulate...Questions are good.

(2) Set interim deliveries of your application, so you can review the **code** and **correct** **errors** early.

(3) If you have trouble contacting your programmer, watch out. No news is bad...

14/K/24   (Item 10 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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07174612   SUPPLIER NUMBER: 14882559   (USE FORMAT 7 OR 9 FOR FULL TEXT)
CD-ROM terms. (Glossary)
Parker, Dana J.
CD-ROM Professional, v7, n1, p122(5)
Jan, 1994
DOCUMENT TYPE: Glossary   ISSN: 1049-0833   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3448   LINE COUNT: 00271

...   also known as "write-once CD."

CD-ROM: Compact Disc-Read Only Memory. A laser- **encoded** optical memory storage medium, defined by the Yellow Book standard.

CD-ROM drive: A computer...

...submitted to ECMA by the Frankfort Group. See CD-Recordable.

CIRC: Cross Interleaved Reed--Solomon **Code** . A method of **error** detection and **correction** used on CD-Audio disc and as a basis for layered **ECC** on CD-ROMs. Reed-Solomon codes are especially effective when errors occur in bursts, as...electronic device or hardware key that plugs into one of the ports of a PC. **Used** to control **access** to **licensed** applications; the software checks the key for its serial number, without which the program cannot...

...compress and decompress data on CD-ROM, CD-I hard and floppy disks.
E

EDC/ **ECC** : **Error** detection **code** / **error** **correction** **code** . A special, highly complex and very efficient method of **error** detection and **correction** for CD-ROMs, which is defined in the Yellow Book specification.

EFM: Eight to fourteen modulation.
     encode : To convert information into machine or computer-readable
format.
     excutable: In MS-DOS. a file...light, whose individual wave phases
are unrelated to the phase of the others.
     layered EDC/ **ECC** : Layered **error** detection/ **error** **correction**
code : Used to ensure the integrity of CD-ROM data. So-called because it is
used...

...facility: A manufacturing plant where compact disc "masters" are created
for the mass production or **replication** of the actual compact discs.
     megabyte: 1,048,576 bytes. See byte.
     metal master: A...facilities, the metal plate used to mass produce
discs. It can stamp out thousands of copies of the disc in polycarbnate.
     T
     title: Generally refers to a CD-ROM containing information...

14/K/25   (Item 11 from file: 148)
DIALOG(R)File 148:Gale Group Trade & Industry DB
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06756007   SUPPLIER NUMBER: 14751733   (USE FORMAT 7 OR 9 FOR FULL TEXT)
NOS. (Software Review) (overview of three evaluations of network operating
   systems)(includes related articles on how products were tested, test
   results, terminology, how to evaluate vendor claims, design of test
   center, executive summary) (Evaluation)
Strom, David; Capen, Tracey
InfoWorld, v15, n46, p138(12)
Nov 15, 1993
DOCUMENT TYPE: Evaluation   ISSN: 0199-6649   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 10031   LINE COUNT: 00783

...   its own bindery, and it cannot share the information with another
server. This means a **user** can have supervisor **access** (administrative
rights over the entire server) to one NetWare server but only ordinary
user **rights** on another server. In fact, to make things really confusing,
you can have different user...

...shut down a server. (It's
   rare, but we have seen it happen. We once **copied** an NLM from a
commercial disk that was corrupted, and it brought down the entire...you
make administrative changes, such as a new user account, the accounts
database is automatically **replicated** from the domain controller to all
other servers.
     In a LAN Manager network (and IBM...

...built to date, provided that you use NTFS for all network disk storage.
Advanced Server **encrypts** all passwords sent across the wire, including
Macintosh users running NT's client software. Network...

...with drag-and-drop simplicity. Whatever changes you make in the
directory tree are automatically **replicated** to all NetWare ...by looking
at the kinds of network administrators each NOS supported and how it
handled **access** **rights** . Our flexibility category evaluated the range of
connectivity options for each NOS -- the clients, protocols...NetWare. The
server machine was a single-processor Acerframe MP-3000 equipped with 64MB
of **ECC** memory. We used three 600MB SCSI drives, with the network
operating system and input data...network administrator performs daily.

They include setting up domain or groups, adding users and changing **user rights** , managing print queues and servers, and backing up networks. We evaluated each for its ease...

...access down to the file level received higher scores. Other bonuses were industry-standard password **encryption** and RAID support. We lowered scores if we found holes in security.
　　　Flexibility: A flexible...on all three products. Both Advanced Server and NetWare 4, however, have new sophisticated password **encryption** schemes not included in NetWare 3.12. Both also give you more variety in the...lot easier to look up specific topics, but it is still useful to have hard **copies** for backup. Although NetWare's documentation was detailed, we found many errors.
　　　Support Policies:
　　　There...

...servers. One server within the group is the domain controller, but the domain database is **replicated** to all servers.
　　　ATM: Asynchronous Transfer Mode. A new high-bandwidth network connection standard. ATM...much good to implement any of these products if each of your servers stores a **copy** of Word in a different directory structure. Now is the time to start the process...

...easy to administer -- one that gives everyone in the New York sales office the same **rights** and **access** to the same resources, for example. You will also have to consider what portion of...
...subset stored on each server? NetWare 4.01, for example, lets administrators set up the **replication** of user accounts as they wish; you can decide how many **copies** get stored where. Vines 5.52 stores searching information across the network, but only a...

...log in.
　　　Windows NT Advanced Server is complex -- all the servers in one domain keep **copies** of all users and update each other every 5 minutes on any changes. This user...

...carefully at security claims. Here are a few points to consider:
　　　* Are all passwords always **encrypted** ? When NetWare or Advanced Server Macintosh clients who use System 7's built-in Appletalk...

...or the additional Mac client software provided by Microsoft and Novell, the passwords are sent **encrypted** .
　　　* Are there separate security profiles for network supervisors, departmental clerks, and other levels of administrators...

14/K/26　　**(Item 12 from file: 148)**
DIALOG(R)File 148:Gale Group Trade & Industry DB
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06707713　　SUPPLIER NUMBER: 14394988　　(USE FORMAT 7 OR 9 FOR FULL TEXT)
Hefty storage on a budget. (includes related articles on Editors' Choice winners, highlights of findings, performance tests and storage methods for greater capacity) (Software Review) (overview of nine evaluations of high-capacity hard disk drives) (Evaluation)
Stone, M. David; Karney, James; Poor, Alfred
PC Magazine, v12, n17, p247(10)
Oct 12, 1993
DOCUMENT TYPE: Evaluation　　ISSN: 0888-8507　　LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT

WORD COUNT: 3599   LINE COUNT: 00265

...   degrees of data redundancy and drive performance. RAID 1--simple
disk mirroring--keeps a full **copy** of all your data on a second drive. The
other RAID standards spread data and...a 1-inch height.
     The technology of these drives is also similar. All use RLL **encoding**
and multiple zone recording (see the illustration on this page)--a scheme
that increases drive...will not be disappointed.
     Related Article

     Large Hard Disks
     A GIGABYTE OF STORAGE is the **right** fit for a power **user** 's dream
machine or for a file server on a small- to mid-size network...

...valid bit of data and a noise spike. Today's controllers use either
retries or **ECC** (Error Control Circuitry) algorithms to verify the
data--which takes time--or else they "window...

  14/K/27   **(Item 13 from file: 148)**
DIALOG(R)File 148:Gale Group Trade & Industry DB
(c)2007 The Gale Group. All rts. reserv.

03526910   SUPPLIER NUMBER: 06833377   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Article finder. (index) (EDGE Report)
Electronic Design, v36, n15, p93(45)
June, 1988
ISSN: 0013-4872.   LANGUAGE: ENGLISH   RECORD TYPE: FULLTEXT
WORD COUNT: 50668   LINE COUNT: .04386

...   154
     Relays and Solenoids   154
     Reliability   154
     RFI/EMI Suppression   154
     Robots   156
      Sensors/Transducers
      Encoders   156
     General   156
     Servomotors   156
      Software
     Communications   156
     Compilers   156
     Data Bases   156
     General   156...
...B Electronic Design 3/17/88 p157 BEI Motion Systems ... Primer on
optical shaft-angle **encoders** in a 16-pagebooklet ... B Electronic Design
2/4/88 p162 Brooktree ... 576-page data...page booklet ... B Electronic
Design 3/17/88 p161 Harris Custom Integrated Circuits Division ... Free
copy of rad-hard, high-reliability custom IC databook ... A Electronic
Design 3/17/88 pC2...2/18/88 p49; 3pp Atlantic Digital...(AVME-35) VMEbus
video graphics and text adapter **duplicates** IBM Pc graphics standards...B
Electronic Design 3/17/88 p135 Augat, Interconnection Products...(Fastpak
...Electronic Design 3/3/88 p130; 1 pp Mag-Tek...Magnetic stripe card
readers and **encoders** for a wide variety of application...A Electronic
Design 1/7/88 p175 National Instruments...Computer Design 3/15/88 p100; 4.5
pp Versatec ... (250, 255, Versacolor) Get color **copies** of screen images
in 4 seconds plotter and video controller ... A Electronic Design 1/7...

...with two driver cards for PC ... B Electronic Design 2/4/88 p149
Tektronix ... Hard- **copy** output moving to 3D, personal, low-cost color

images...E Electronic Design 1/7/88...is brewing in view of a U.S.
Government study showing that digital audio tape **copy** protection chips
don't always work...E Electronics 3/17/88 p46;0.5 pp...ns, corrects them in
30 ns ... B Electronic Design 2/4/88 p159 NCR ... (85C20) **ECC** chip works
in optical disk drivers ... B Electronic Design 3/3/88 p128

    ICs, FIFO...Feb. 16-18, San Francisco, CA...E Electronics 2/18/88
p73; 1 pp Various ... **Review** of strategies for choosing the **right**
microprocessor ... E Computer Design 2/15/88 p59; 11 pp Various...Review of
the use...

...without losing compatibility ... B electronic Design 1/7/88 p191
Zymos...(Poach/ATE) Chip pair **duplicates** logic for 16-MHz PC ATs...E
Electronic Design 1/7/88 p185; 1 pp...A EDGE 3/88 p213 Texas
Instruments...(TCM29C13, 14, 16, 17) Telecom chips house PCM **encoder** ,
decoder, filter and dissipate only 80 mW typical ... B Electronic Design
1/7/88 p201...Electronic Design 1/21/88 p97; 3.5 pp Harris Custom
Integrated Circuits Division...Free **copy** of rad-hard, high-reliability
custom IC databook...A Electronic Design 3/17/88 pC2...system positions
board parts...E Electronic Design 3/17/88 p151; 1 pp

    Sensors/Transducers, **Encoders** BEI Motion Systems ... Primer on
optical shaft-angle **encoders** in a 16-page booklet ... B Electronic Design
2/4/88 p162 Canon U.S.A Components Division ... Very-high-resolution laser
rotary **encoders** offer up to 81,000 ppr, frequency response to 2 MHz...A
EDGE 3/88 p238 Canon ... (M-1, R-2) Laser-based rotary **encoders** are fast
and precise...E Electronic Design 3/31/88 p150: 1 pp Control Sciences...

  14/K/28   **(Item 14 from file: 148)**
DIALOG(R)File 148:Gale Group Trade & Industry DB
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02476247   SUPPLIER NUMBER: 03918047   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Let there be light. (Optical storage devices)
Onosko, Timothy
Creative Computing, v11, p43(7)
Sept, 1985
ISSN: 0097-8140   LANGUAGE: ENGLISH   RECORD TYPE: FULLTEXT
WORD COUNT: 4824   LINE COUNT: 00377

...   damaged. Magnetic recording, on the other hand, has flourished and,
because it can record and **reproduce** information other than sound, has
become a vital part of most modern technologies, including video...

...the recordings was necessary. Without the scanning electron microscope,
this would be impossible.
    To make **copies** of optical recordings, the microscopic manufacturing
techniques learned from large-scale integrated circuits were required...

...They work in almost exactly the same manner, with one major difference.
The laser videodisc **reproduces** an analog signal, and the CD stores and
plays back digital information.
    The laser videodisc...
...how the laser videodisc works. The shiny surface of the 12"
(30-centimeter) videodisc is **encoded** with tiny--a little more than a
micron wide--pits or surface deformities arranged in...

...color data and audio. (Color and audio are buried in the signal as
subcarriers.)
    This **encoded** video signal also includes other information such as
frame numbers and running time. The data...NTSC standard television. So,

for each rotation of the videodisc, one single TV frame is **reproduced** .
     The second videodisc format is called extended play or CLV (for
constant linear velocity). CLV...

...Compact discs, for example, are really miniature videodiscs, 4.7" (120
mm) in diameter, that **reproduce** digital audio instead of analog video.
All CDs are CLV format discs, since there would...

...and crosstalk -- the integrity of the information is protected by
redundant recording and a software **error   correction** technique known as
the Reed Solomon Cross Interleave **Code** (CIRC).
     As of this writing, no double-sided compact discs have been pressed
for consumer...many present users. Compact discs are inexpensive; mastering
one costs less than $5000, and each **copy** costs less than $5. These prices
are very low when compared to paper publishing.
     Unfortunately...an innovative company which has devised a reversible
(or erasable) phase change material and has **licensed** its **use** to Hitachi
and Matshushita in Japan. Hitachi has also announced another erasable
material which is...storage techniques, while Toppan is already
well-advanced in its own optical research project, mass **replication** of
holograms. The potential of holography for mass information storage has
barely been explored, but...

14/K/29   (Item 1 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02267228   SUPPLIER NUMBER: 53728454   (USE FORMAT 7 OR 9 FOR FULL TEXT)
new products.
HP Professional, 13, 1, 36(1)
Jan, 1999
ISSN: 0896-145X   LANGUAGE: English   RECORD TYPE: Fulltext
WORD COUNT: 1359   LINE COUNT: 00115

...   supports up to four processors with 512K or 1024K L2 Cache, up to
4GB of **ECC** -buffered EDO memory and dualpeer 64-bit buses. It starts at
$12,784.
     Contact Compaq Computer Corp., Houston, TX at (800) OK-COMPAQ.
     DISASTER RECOVERY AND SECURITY
     Encryption Plus 5.1 For Hard Disks
     Eplus-Hard Disk offers automatic data protection with centralized...

...allows administrators to create User Install disks and One-Time Password
programs for hard drive **encryption** within a corporate environment.
     It also has a Local Administrator for different local passwords for
...

...or locations and the Auto Install feature that allows an administrator
to manage hard drive **encryption** over the network. It uses the Blowfish
algorithm with a 64-bit cipher. A 160...

...available in the U.S. and Canada. It sells for $99.95 for single user
copies with quantity discounts available.
     Contact PC Guardian, San Rafael, CA at (800) 288-8126.
     E...

...re-build any data. NetAgent TM 2.0 supports any browser and uses SSI,
security **encryption** .
     Contact eShare Technologies, Commack, NY at (888) 374-2734.

MESSAGING AND E-MAIL
Net SatisFAXtion...

...up menus, text substitution and Windows message boxes.
It starts at $199 for a single **user   license** .
Contact JSB Corporation, Scotts Valley, CA at (408) 438-8300.
STORAGE
HTML Jukebox Management
Tracer...data and "real expansion" for all new information.
The PC version is $2,000 single **user** ; $15,995 ten- **user   license** ;
$29,875 25- **user   license** ; additional users added at $995. The Internet
version is $249.
Contact RMM, Inc., Colombia, MD...

14/K/30   (Item 2 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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02109489   SUPPLIER NUMBER: 19769766   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Digital certificates and certificate authorities. (public key cryptography)
  (includes related articles on verifying digital signatures and sending
  session-key messages) (Government Activity)
Moreh, Jahan
Databased Web Advisor, v15, n9, p73(4)
Sep, 1997
ISSN: 1090-6436   LANGUAGE: English   RECORD TYPE: Fulltext; Abstract
WORD COUNT: 2779   LINE COUNT: 00224

ABSTRACT: Public key **encryption** , or **encryption** using digital
certificates and certificate authorities (CA), will likely become the
predominant method of securing...

...government and most states should pass laws making digital certificates
legally binding. In public key **encryption** , every electronic commerce
participant has two keys: a private signature key, or digital signature,
and a public verification key. Any message **encrypted** with a certain
private signature key can be decrypted with its associated public
verification key...
...a trusted third party, issues digital certificates that verify a private
signature key holder's **right** to **use** a public key, just as the DMV
issues drivers' licenses which are honored by the...
...   key cryptography
    The basis of any electronic security is cryptography. Cryptography is
primarily used to **encrypt** and decrypt data. **Encryption** has been used
for many decades for military as well as commercial applications, mainly in
the financial industry. Until a few years ago, the most popular **encryption**
 algorithms were those that used symmetric or secret keys. In a symmetric
algorithm, the key you use to **encrypt** a message must also be used to
decrypt the message. Symmetric key algorithms require the...

...is typically derived from your password. The most popular secret key
algorithm is the Data **Encryption** Standard (DES). Other popular algorithms
include the International Data **Encryption** Algorithm (IDEA), and Rivest
Cipher 2 and 4 (RC2 and RC4).
    A password is a...

...available to everyone. The two keys are related in such a way that a
message **encrypted** with the private key can be decrypted only with the
public key.

The fact that you can decrypt a message from me with my public verification key means that I **encrypted** that message with my private signature key--which only I possess. So, if you trust...

...belongs to me, you trust that the message came from me. A message that's **encrypted** with my private key, in effect, bears my digital signature. Similar to a handwritten signature...

...Digital Signature Algorithm (DSA), the RSA (Rivest-Shamir-Adleman) algorithm, and the Elliptic Curve Cryptosystem (**ECC**).

The need for a Certification Authority

If I publicize my public verification key, how do...key cryptography for sending private messages. If you know my pub/ic key; you can **encrypt** any message with that key to ensure no one else can view the message--I... communication, one party chooses a random number, called a session key. Then, the choosing party **encrypts** the session key with the public key of the recipient and sends it on its...

...to them and no one else. Subsequently, the two parties use this session key to **encrypt** messages.

Session keys are used with symmetric key algorithms (e.g., DES) and yield much faster **encryption** and decryption. These keys are called session keys because they're only good for a...

...Internet, and RSA's site at http://www.rsa.com/rsalabs/newfaq/. To order a **copy** of the Information Security Blueprint from Open Horizon, Inc., call (415) 869-2200, or e...

...application (see sidebar "Considerations in Privacy Protection" on page 77), there's an alternative to **encrypting** the entire document with your private key.

Here's how it works. On the sending...

...the document. Digests are one-way functions. That is, knowing the digest, you can't **reproduce** the original document. Furthermore, if you use a strong digest algorithm, the chances of two...

...party. these two sentences will produce a different digest. After you prepare the digest, you **encrypt** it with your private key. Then, you send the original message along with its **encrypted** digest. Anyone can view your message, alter it, and produce a digest for the altered message as well. But no one can produce an **encrypted** digest. That's because the digest is **encrypted** with your private key, which is only known to you.

On the receiving side, the...

...message, the longer it takes to compute the digest. However, this is much better than **encrypting** the entire message.

Jahan Moreh is the chief security architect at Open Horizon, Inc. He ...

...DESCRIPTORS: Public Key **Encryption** ;

14/K/31 **(Item 3 from file: 275)**
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01853941   SUPPLIER NUMBER: 17507761   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Network management.(LAN Buyers Guide Issue)(Buyers Guide)
LAN Magazine, v10, n10, p201(51)
Oct 15, 1995

...   routing, suggest solutions, and reporting features and costs $5,000
for 5 administrators.
    MICROCOM
    CARBON **COPY** FOR WINDOWS 3.0, DOS 6.1
    Carbon **Copy** for Windows 3.0 and DOS 6.1 support DOS or Windows
clients on NetWare...Manager, LAN Server, NetBIOS, NetWare 3.x and 4.x,
VINES, and Windows NT. It **duplicates** data directly between different
vendor databases. **Replication** alternatives include transaction-based,
mirroring, and selective data **duplication** . It is fault tolerant and costs
$20,000 per server.
    RAXCO HELPLINE
    Helpline supports Windows...
...problem routing, suggest solutions, and reporting features. It costs
$4,995 for a single server **license** with no **user** fees.
    UTOPIA TECHNOLOGY PARTNERS
    UTOPIA/HELPDESK
    Utopia/HelpDesk supports Windows clients on NetWare 3.x...existing LAN
directory fields and/or fields you define. It costs $495 for a 50- **user**
license and $395 per additional 100 users.
    FRYE COMPUTER SYSTEMS SOFTWARE UPDATE
    AND DISTRIBUTION SYSTEM (MACINTOSH...

...files, volumes, fonts, SCSI devices, and NuBus cards. It costs $995 for
the initial 50- **user** **license** and $895 per additional 100- **user** **license**

    FRYE COMPUTER SYSTEMS SOFTWARE UPDATE
    AND DISTRIBUTION SYSTEM
    Software Update and Distribution System supports LAN...

...the network manager to create a set of procedures at 1 server to be
automatically **copied** to any or all installations of SUDS on a WAN. Fanout
procedures combine SUDS procedure...and DOS applications on the network. It
eliminates scriptwriting, modifies all 5.0 .ini files, **copies** necessary
files including OLE Registration Database, and installs icons. It has file
compression for WAN...and 4.x, LAN Manager, LAN Server, VINES, and Windows
NT and manages DSUs and **encryptors** on SCO Unix and 486 PC using an X
Window or Motif interface. Configuration, fault...or bridge as well as for
a workstation shell. It costs $149 for a 50- **user** **license** ; $149 for an
additional 100- **user** **license** .
    FRYE COMPUTER SYSTEMS STATISTICS
    DISPLAY RACK FOR NETWARE (STATRACK) 1.0
    StatRack 1.0 monitors...6,500 for the server including 3 client
licenses and $800 for each additional client **license** .
    RIT TECHNOLOGIES
    PATCH **VIEW**
    Patch **View** works with AppleShare, NetBIOS, NetWare 3.x and 4.x, LAN
Manager, LAN Server, VINES...Windows NT, and any NOS with file-sharing and
record-locking capabilities. It manages software **licenses** **using** a
Windows interface. **Usage** monitoring functions are provided. Data is
stored in proprietary format; on-screen and e-mail...price is $995 per host
computer.
    AXENT TECHNOLOGIES OMNIGUARD
    OmniGuard is anti-viral, access control, **encryption** ,
software4icensing, call-back modem, enterprise security management,
intrusion detection, ...costs $1,995.
    CISCO SYSTEMS

INTERNETWORK OPERATING SYSTEM
     Cisco Internetwork Operating System is access control, **encryption** ,
call-back modem, fire-walling, rate authentication, and single-user
security hardware/software for AppleShare...

...VINES networks. DOS and Windows are supported. On-screen event
notification is provided.
     COMMUNICATION DEVICES
     ENCRYPTION SECURE ACCESS SYSTEM
     Encryption Secure Access System is **encryption** hardware/software
for NOS Independent networks. DOS, Macintosh, Windows, and OS/2 are
supported. On...

...3,349 for 16 ports.
     COMPUTER ASSOCIATES CA UNICENTER
     CA Unicenter is access control and **encryption** software for LAN
Server, NetWare 3.x, and Windows NT. Windows NT, OS/2, and...

...pager event notification is provided. Prices start at $2,000.
     CYBERSAFE CHALLENGER
     Cybersafe Challenger is **encryption** and authentication software for
NetWare 3.x, Windows NT, and TCP/IP networks. DOS, Macintosh...
...HP-UX, Dynix/PTX, and BSDI are supported.
     CYLINK
     CIDEC-LS, MS, HS, AND VHS **ENCRYPTORS**
     Cidec-LS, MS, HS, and VHS **Encryptors** are **encryption**
hardware/software for AppleShare, LAN Manager, LAN Server, NetBIOS, NetWare
3.x and 4.x...

...a serial port front end for up to 892 ports, providing access control,
authentication and **encryption** services. It includes X.509 certificate
authority and supports Cylink's SafeComm Link, LSC certificate-based
encryption and third-party access control cards. It includes accounting
and session logs and costs $30...

...NOS platform and is part of CyLink's Enterprise Security Architecture.
It provides authentication and **encryption** for all on-line serial
communications and works with existing applications. It uses DES
encryption X.509 certificate authority and automates key management. It
costs $345.
     D & G INFOSYSTEMS
     PROWLER...

...for 25.
     FISCHER INTERNATIONAL
     WATCHDOG DIRECTOR LAN
     Watchdog Director LAN is anti-viral, access control, **encryption** , and
centralized administration software for LAN Manager, LAN Server, NetBIOS,
NetWare 3.x and 4...event notification is provided. The price is $495 per
server.
     ISOLATION SYSTEMS
     ISOLATION SYSTEMS PACKET **ENCRYPTOR** (ISPE)
     ISPE is **encryption** hardware/software for IP networks and
internetworks. Connections to all leading routers are supported. On...

...provided. The price is $495 per server allowing unlimited users.
     NORTHERN TELECOM ENTRUST
     Entrust is **encryption** and digital signature software. Macintosh,
Windows, and Unix are supported. The price is $159 per **user** **license** .
     ON TECHNOLOGY AHDITTNACK

AuditTrack supports NetWare 3.x and 4.x (running as an NLM...screen and fax event notification is provided.

OPTICAL DATA SYSTEMS SUNSCREEN

Sunscreen is access control, **encryption** , and authentication hardware/software for networks running IP. It supports Unix and provides on-screen event notification. Prices start at $68,000.

PARALON TECHNOLOGIES PATHKEY

Pathkey is access control and **encryption** hardware/software for AppleShare, LAN Manager, LAN Server, NetBIOS, NetWare 3.x and 4.x...

...000 for Eagle Enterprise. The price for Eagle Lite is $7,500 for a 50- **user** **license** and $12,500 for a 100- **user** **license** .

RAPTOR SYSTEMS EAGLE REMOTE

Eagle Remote is remote location Internet firewall software for NetWare 3...

...price is $995 per server (workstations included).

RIMAGE TELEVAULTING

Rimage Televaulting is anti-viral and **encryption** off-site software. On-screen event notification is provided.

SABER SOFTWARE LAN WORKSTATION

LAN Workstation...

...INTEGRATION

STOPLIGHT/LAN FOR WINDOWS

StopLight/LAN for Windows is anti-viral, access control, and **encryption** software for LAN Manager, LAN Server, NetBIOS, NetWare 3.x and 4.x, VINES, and...

...event notification is provided. Prices start at $195.

SPRY/COMPUSERVE SAFETY WEB

Safety Web is **encryption** and authentication software for LAN Manager, NetBIOS, NetWare 3.x and 4.x, and Windows...

...1,049 for Token Ring.

ZOOMIT INTELLIGENT SECURITY AGENT

Intelligent Security Agent is access control, **encryption** hardware/software for NetWare 3.x and 4.x, VINES, and Windows NT. Windows and...dynamic server tuning and optimization control functions. It costs $895 per server for the master **copy** .

HEWLETT-PACKARD

HP OPENVIEW OPERATIONSCENTER

HP OpenView OperationsCenter runs on Unix workstations. It tracks server...server utilization and server and subsystem installation. Control functions include remote command execution, Control NIC, **ECC** , ASR, HD, and diagnostics, and Intel LANDesk is included. It also works with NMS, SunNet...server/driver emulator that offers "driverless" features such as on-line mirroring and off-line **duplication** . It costs $4,995.

CEC CYCUBE

CYCUBE KIT

CyCube Kit is a rack-mounted computer...allows users to share scanners over any AppleTalk network. It costs $89 for a 10- **user** **license** .

TRIMM TECHNOLOGIES

RAID-READY ENCLOSURES

Raid-Ready Enclosures allow intergrators to combine hard drives with ...multiple servers on the network. It has a scripting language and costs $3,500 per **copy** .

HORIZONS TECHNOLOGY

LANSHADOW 4.0

LANshadow 4.0 is a network mirroring tool that runs...network backup and server mirroring. Network data can be backed up instantaneously, and

when a **duplicate** server is used for backup processing it can continue
without interruption. It works with all...

...and data recovery for NetWare 3.x and 2.x. It allows a user to **copy**
files or sectors to floppy diskettes from a downed or crashed server
without using a...

...and system repairs without bringing the file server off-line. It allows
files to be **copied** from a downed server volume to other servers or
volumes on the network. It costs...

...features include grandfatherhag of tapes, SNMP and MHS support,
environment checker, file-version tracking, media **copy** , and "recovered"
indication. 1 unit can back up multiple servers on the network. It has...

...management features include grandlathering of tapes, data migration,
hierarchical storage, environment checker, SMS, SIDF, media **copy** , GFS,
and Tower of Hanoi, as well as file-version tracking. 1 unit can back...
controllers). It costs $249.
    VINCA STANDBYSERVER
    StandbyServer supports NetWare 3.x and 4.x. It **duplicates** critical
server components and network data. In the event that a server fails, the
standby...calendar software packages and for Lotus Notes. Costs start at
$595 for a 10 concurrent- **user** **license** .
    SHIPLEY CONSULTING
    ETHERNET POCKET REFERENCE GUIDE,
    SECOND EDITION
    The second edition of the Ethernet Pocket...

14/K/32   **(Item 4 from file: 275)**
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01600581   SUPPLIER NUMBER: 13734522   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Stump the cipher punks. (data encryption **for network security) (includes**
   related articles on the Data Encryption **Standard,** encryption
   algorithms and a hypothetical code-breaking computer)
Hyatt, Glenn
LAN Magazine, v8, n6, p93(6)
June, 1993
ISSN: 0898-0012   LANGUAGE: ENGLISH   RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 3348   LINE COUNT: 00260

Stump the cipher punks. (data encryption **for network security) (includes**
   related articles on the Data Encryption **Standard,** encryption
   algorithms and a hypothetical code-breaking computer)

...ABSTRACT: is vulnerable to unauthorized access, but this can be
minimized through effective use of data **encryption** . Running the original
file through an **encryption** algorithm results in a **scrambled** file that
may only be decoded with a specific character or numeric string, called a
key, which corresponds to the original algorithm. Symmetric **encryption**
uses the same key for **encryption** and decryption, while asymmetric
encryption uses different keys for each process. 'Public key algorithms'
are very useful in that they require two keys for data **encryption** and are
especially necessary on a network because data is 'broadcast' rather than
'narrowcast' over...

...that it will be accessible only by the requesting user. The managerial

decision to implement **encryption** should include the value of the
network's data, the cost of implementation, the effectiveness of the chosen
encryption method and the likelihood of break-in attempts. The
encryption capabilities of various network management systems are
discussed.
...   WA) Extra. In effect, these users broadcast their mainframe
passwords each time they sign on.

ENCRYPTION BASICS

The fundamental aim of **encrypting** data is to make it difficult for
unauthorized people to read the information, even if...

...value. This goal is accomplished by running the original data (the
cleartext orplaintext) through an **encryption** algorithm in conjunction
with a cryptographic key, a bit or character string or a numerical value
that, when applied with the correct algorithm, **encodes** the message.

In a well-designed method, the resulting **scrambled** data
(ciphertext) is different for each possible key. Given enough possible
keys, trying each key (a brute-force attack) becomes an impractically large
task.

Encryption methods may be categorized as symmetric or asymmetric.
Symmetric methods (such as the Data **Encryption** Standard, or DES) use the
same key to **encrypt** and to decrypt data. Asymmetric methods (such as RSA,
named after its authors Rivest, Shamir, and Adleman) use different keys to
encrypt and decrypt.

One very useful type of asymmetrio method is public-key algorithms,
again, such as RSA, in which data must be **encrypted** under one key and
decrypted under another. One key is public and may even be...

...private and is kept secret. This way, for example, anyone can send Alice
a message **encrypted** under her public key, but only Alice has the private
key to decrypt it.

READ...

...managers or auditors concerned with the security of their systems ask
whether certain data are **encrypted** . If the answer is yes, they may ask to
see the data to ensure that it is, actually, **encrypted** . Often they are
satisfied if they can't read it by casual browsing.

In fact...
...some users, the originator of the joke or the moderator of the bulletin
board will **encrypt** the posting. The posting can't be read with a casual
glance.

The method used...

...because the message need only be obscure to the most casual browser.

Most often, however, **encryption** must be tough enough to frustrate a
determined and skilled observer trying to extract the...

...call for a manager to quantify:
* the value of the data;
* the cost of implementing **encryption** ,
* the effectiveness of the proposed **encryption** method, and
* the probability of a successful attempt to break the code.
After weighing these...

...shrewd business decision based on the potential cost of disclosure vs.
the cost of applying **encryption** . A manager familiar with the data and its
market can estimate the value of a...

...of data. He or she can easily figure the cost of a given application of
encryption by accounting for the cost of any hardware and software

involved, plus the cost of increased capacity required. (Software **encryption** can place significant demands on a CPU.)

Evaluating the effectiveness of an **encryption** method and figuring the likelihood of an attack can be touchy business, though.

WEIGHING EFFECTIVENESS supply a password to be used as a key to **encrypt** ("lock" in WordPerfect terminology) a file as it was saved. A locked file looked to the casual browser like random information, when, in fact, the **encryption** method was not trivial.

Documentation warned users that information couldn't be recovered without the password. However, an article appeared in the public press describing the **encryption** method and how the author went about attacking it. (The article, "An Analysis of the **Encryption** Algorithm Used in the WordPerfect Word Processing Program," by John Bennett, appeared in Cryptologia, vol. 11, no. 4, page 206.)

The author concluded by offering a **copy** of the decryption program if the reader sent a blank disk "with a note explaining your interest." (WordPerfect has since strengthened the **encryption** method.)

Another interesting article in the same journal analyzes the **encryption** components of five commercial PC security products available at that time (see "A Survey of...

...to break them."

The vendors of these products no doubt worked hard on making these **encryption** algorithms difficult to break, but in the end they were thwarted. Simply put, judging an **encryption** method's resistance to attack is very difficult.

What motivates a potential code cracker? We...

...security of the packages discussed here was breached by people attacking products, not some particular **encrypted** data. The authors' motivation would, of course, be impossible to discern, but the former article...

...latter was written by the developer of a rival security package. Perhaps pursuit of bragging **rights** and potential financial gain **played** their parts, but who could guess all the reasons someone would put his or her...

...to predict the likelihood of attack.

EVALUATING THE METHODS

The best indication of a given **encryption** method's strength comes when the method has been subjected to plenty of scrutiny. If...

...nearly as long as the DES and has also proven resistant to cryplanalVsis (cracking the **encryption** scheme). It's based on the difficulty of factoring the product of two very large...

...dent the algorithm's armor.

Rather than try to evaluate the strength of a given **encryption** method yourself, a safer bet would be to place your money on methods that have been published and proven resistant to cryptanalytic attacks. Assume that a potential attacker of an **encryption** scheme is much more capable than you are at cryptanalysis. If a vendor uses a...

...chain. The secrecy of the keys (except public keys) is the foundation on which the **encryption** structure rests. When you implement **encryption** , the way you handle the keys and the way the product handles the keys are critical.

To evaluate a product that provides the **encryption** capabilities then, ask what cryptographic method is used and how the keys are handled. If...

...Remember the articles previously cited in which the authors detail how

to break commercially available **encryption** schemes.

A final word of warning: If you need to share **encrypted** information among sites in different countries, your task will be more complicated. Software and hardware...

...time in the works, if granted at all.

Other countries also regulate the flow of **encryption** technology. France and Taiwan, for example, restrict the import of such products.

YOU'VE GOT INTEGRITY

The bottom line when trying to safeguard the confidentiality of **encrypted** data is to make it difficult for an unauthorized person to reverse the **encryption** process. However, **encryption** techniques that assure data confidentiality can also be applied to assure data integrity.

Suppose Alice...

...they are worried about a noisy communications link corrupting that message, they can use an **error** -detecting or **error** - **correcting** **code** , such as those used in modems.

But if Alice and Bob fear that the message...

...be corrupted by a third person of dubious intent, they have a different problem. Ordinary **error** -detecting and **error** - **correcting** **codes** are easily analyzed and understood by a competent eavesdropper. The dastard could unravel the code...is to verify the source of data. The mere fact that Bob received a message **encrypted** with a symmetric algorithm under a key shared only by himself and Alice assures Bob...

...forge the message? After all, they both know the key.

Enter public-key systems. Alice **encrypts** the message (or, in practice, more likely a hash value of the message) under her...

...to verify that she sent it. Because only someone with the private key could have **encrypted** the message, Alice can't disavow the message's authenticity.

NETWARE'S CRYPTOGRAPHY

No current LAN system transmits or stores users' LAN passwords in cleartext. They store either an **encrypted** password or a hash value of the password. A common approach is to use one-way **encryption** . When a user enters a new password, it's **encrypted** and stored in such a way that it can't be decrypted. Then when the user attempts to sign on, the password entered is **encrypted** and compared with the **encrypted** password stored for that user. If they match, the user is allowed on.

On a...

...private key for the user. The user's private key is stored on the server **encrypted** under the user's password. When a user signs on, his or her private key is downloaded, in **encrypted** form of course, to the client node. If the user has access to two servers...

...about the contents of that signature.

In the future, Novell will furnish the option of **encrypting** the data within packets.

CRYPTOGRAPHIC LAN PRODUCTS

LAN managers can choose from among hardware- and...

...LANs. Generally speaking, hardware implementations are more expensive and faster. The keys used are typically **encrypted** in a hierarchy, ultimately based on a key protected by tamper-proof hardware.

Software implementations...

...DES product for Ethernet LANs called Digital Ethernet Secure Network Controller (DESNC) based on an **encryption** unit with four ports. The unit is installed between a part of the network and...

...and Work Group Plus products allow you to divide a LAN into subnets that are **encrypted** . They use DES to **encrypt** data and RSA for key management protocols. Their equipment is protocol transparent and independent of the topology of any WAN to which the subnets are attached.

Cylink manufactures hardware to **encrypt** data flowing among LANs or between LANs and WANs, rather than within a LAN. Its products offer **encryption** under various algorithms, including DES and proprietary algorithms. The products' key exchanges take place via...

...the software available, Fischer International (Naples, FL), with its Watchdog and Director security products, offers **encryption** . The user can choose DES or a proprietary method to **encrypt** selected directories. Files are passed around the network in **encrypted** form and are decrypted in workstation memory. Keys are stored on the workstations, **encrypted** under users' passwords. Fischer's MailSare product applies the RSA technique to provide **encryption** and digital signatures for "any PC-based messaging system."

A relatively new type of product...

...such packages that provide RSA digital signature capability.

THE TIME HAS ARRIVED

Unless you already **encrypt** data on your LAN, you're broadcasting it to anyone who can connect to the...

...or if it has inhibited your organization from placing sensitive applications on LANs, carefully implemented **encryption** could be your answer.

Glenn Hyatt, founder of HighGate Solutions, is a data-security consultant...

...DESCRIPTORS: **Encryption** ;

14/K/33   **(Item 5 from file: 275)**
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01586935   SUPPLIER NUMBER: 13475884   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Function return values. (question and answer) (Column)
Tucker, Andrew; Beck, Walter; Smith, Fred; Brown, James; Pugh, Kenneth
C Users Journal, v11, n3, p87(6)
March, 1993
DOCUMENT TYPE: Column   ISSN: 0898-9788   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT
WORD COUNT: 2050   LINE COUNT: 00147

...   the operator + to mean concatenation. The assignment operator is also usually overloaded to mean string **copying** . So the set of operations can be expressed as:
    a = "" + b + C;
    or
    a = b...

...remainder upon division by 11.

I'll use an example. Suppose the number to be **encoded** is 34781 and you wish to make the check digit the third digit from ...up the good work ! Fred Smith

Thank you both for your contribution. I had an **encoding** course about twenty years ago, but the algorithms I recall were mainly for correction of...

...detection code. It could not detect a transposition error (switching two binary digits). Cyclic redundancy **codes** (CRC) can be used to **correct** multiple **errors** , such as might be found on magnetic disks.
A single check digit for a decimal...

...an example.
If I had used return instead of goto I would have had three **copies** of the free code for buf1, two **copies** of the free code for bur2, and four different exit points in the routine. This way I only have one **copy** of the free code and one exit point which makes maintaining the code easier.
In...

...is not a reason to avoid them altogether. You just have to make sure you **use** the **right** tool for the **right** job.
James Brown
Orem, UT
I agree with your sentiments regarding gotos, as I have

14/K/34 (Item 6 from file: 275)
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01531023   SUPPLIER NUMBER: 12475654   (USE FORMAT 7 OR 9 FOR FULL TEXT)
VLSI circuits for low-end and midrange PA-RISC computers.
  (very-large-scale-integrated chips used in HP PA-RISC reduced instruction
  set computing workstations)(includes related article on performance
  modeling and simulation) (Technical)
Gleason, Craig A.; Johnson, Leith; Mangelsdorf, Steven T.; Meyer, Thomas O.
; Forsyth, Mark A.
Hewlett-Packard Journal, v43, n4, p12(11)
August, 1992
DOCUMENT TYPE: Technical   ISSN: 0018-1153   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: -- 8027 · LINE COUNT: 00647

...   cache speed and size options. Included in the cache interfaces are tag compare circuitry, parity **encoding** and decoding logic, store byte merging logic, and cache fill and copyback circuits.
Given that...

...on an instruction cache miss operation, the CPU can execute the code as it is **copied** into the cache. This "cache streaming" effectively reduces the miss penalty by up to eight...
...been modified and a "private" bit for multiprocessor support. Each processor must obtain a private **copy** of a cache location before modifying that location in the cache. The instruction and data...identifier and virtual page number), and the RAM holds the real page number, protection identifier, **access** **rights** , and other information specific to the entry. The virtual address for the current instruction or...

...operation needs to be performed. To maintain synchronism, the FPC and the CPU keep identical **copies** of the processor pipeline. The FPC's direct connection to the data cache SRAMs helps...takes using two separate stores. This is important because many codes (like memory-to-memory **copy**) are limited by load/store bandwidth.

Memory and I/O Subsystem
For typical application workloads...

...wide banks are multiplexed and accessed in page mode to provide the necessary bandwidth.

An **error** detection and **correction** scheme is employed to control soft **errors** inherent in DRAM technology. An eight-bit **code** is calculated from 64 data bits. The **code** used is capable of **correcting** any single-bit **error** , detecting any double-bit **error** , and detecting any four-bit burst error resulting from a single DRAM failure.

Memory write granularity is 64 bits (72 with **error** **correction** **code**). Therefore, any write of less than a double word must use read-modify-write cycles...

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01419537 SUPPLIER NUMBER: 09786081 (USE FORMAT 7 OR 9 FOR FULL TEXT)
Digital designs conquer consumer music and video. (the history of digital sound and video reproduction)
Williams, Tom
Computer Design, v30, n1, p83(6)
Jan 1, 1991
ISSN: 0010-4566 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 4247 LINE COUNT: 00327

Digital designs conquer consumer music and video. (the history of digital sound and video reproduction)
... the vinyl LP and the tape. Since Thomas Edison's day, music was still being **reproduced** by dragging a stylus through a groove. Tape systems, however refined, were still subject to...

...bit (16-bits per channel) samples per second, and combined with a sophisticated Reed-Solomon **error** **correcting** **code** . The music, represented as tiny dimples that stand for Is and Os, is stamped onto...

...is that like the LP before it, it can't record. Of course, one can **copy** CD music onto standard cassettes, but then one will end up with the inferior sound...noise and scratches with selective filtering and have enhanced certain frequency bands that didn't **reproduce** well in the old medium, giving old recordings new life.

While the most obvious use...those channels could use another advantage of digital electronics-error correction.

Whether or when digitally **encoded** video signals become the mainstream form of television broadcasting may not even be the most...the operating system-are downloaded to the control terminal over the air.

The data is **encoded** on an FM subcarrier leased by Interactive Network for a given broadcast area. It's simulcast in synch with the regular TV broadcast. Alternatively, the data can be **encoded** in the vertical blanking interval (VBI) of the video signal. If this is done at...

...the network feed, then all affiliate stations can automatically carry the programming. For program data **encoded** in the video signal, the subscriber needs a booster, a box that extracts the data...

...the game at the Interactive Network headquarters clicks on a menu in a program that **encodes** data to send out telling what play really happened. The program in the control terminal then tells the **viewer** if the guess

was **right** and assigns a score.
     Once **viewers** have finished playing, they can plug the unit's modem
into their telephone line and...

...to interactive TV is that taken by Beaverton, OR-based Interactive
Systems with its video **encoded** invisible light (VEIL) system. VEIL uses
the actual picture frame portion of the TV signal...

...VBI, which can be inadvertently blocked and replaced by local station
equipment, thus losing the **encoding** placed in a network feed. Digital
information is **encoded** in the luminance component of the video signal in
such a way that it can...

...detected by the eye, but can be detected by a high-speed photodiode.
     The data **encoded** in the luminance signal can be information and can
be used to activate other functions...

...of France. The toy contains a photo-detector and a microprocessor that
responds to signals **encoded** with the program so that viewers can play
along with the action on the screen...

...it possible to design a wide variety of interactive products that can be
used with **encoded** programming. An electronic keyboard, for example, could
be designed to receive the signals and light...

 DESCRIPTORS: Sound Recording and **Reproduction** ;

 14/K/36   (Item 8 from file: 275)
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01386272   SUPPLIER NUMBER: 09716367   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Experiences with the Amoeba distributed operating system. (technical)
Tanenbaum, Andrew S.; Renesse, Robbert van; Staveren, Hans van; Sharp,
Gregory J.; Mullender, Sape J.; Jansen, Jack; Rossum, Guido van
Communications of the ACM, v33, n12, p46(18)
Dec, 1990
DOCUMENT TYPE: technical   ISSN: 0001-0782   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 14734   LINE COUNT: 01130

...   ·files are local unless a remote file system is explicitly mounted
or files are explicitly **copied** . In short, the user is clearly aware that
multiple independent computers exist, and must deal...

...there are multiple servers that provide the same function, for example,
as part of the **replicated** file system.
     Fourth are the gateways, which are used to link Amoeba systems at
different...read. The function itself returns 0 if it executed **correctly**
or an **error** **code** otherwise. A hand-written stub for this **code** is
simple to construct: it will produce a request header containing file...
subprocesses. In Unix, a subprocess is created by the fork primitive, in
which an exact **copy** of the original process is made. This process can
then run for a while, attending...

...a distributed system, this model is not attractive. The idea of first
building an exact **copy** of the process, possibly remotely, and then
throwing it away again shortly thereafter is inefficient...apply to one
user class. For example, one could set up a directory with different

access rights for the owner, the owner's group, and others, as in Unix, but other combinations for fault tolerance.

Furthermore, there is also support for handling **replicated** objects. The capability field in Figure 3 can actually hold a set of capabilities for multiple **copies** of each object. Thus when a process looks up an object, it can retrieve the entire set of capabilities for all the **copies** . If one of the objects is unavailable, the others can be tried. The technique is...

...by Eden [20]. In addition, it is possible to instruct the system to automatically generate **replicas** and store them in the capability set, thus freeing the user from this administration.

In addition to supporting **replication** of user objects, the directory server is itself **duplicated** . Among other properties, it is possible to install new versions of the directory server by...the kernel. The measurements represent the average values of 100,000 trials and are highly **reproducible** .

For each configuration (pure Amoeba, Amoeba primitives on Unix, Sun RPC on Unix), we tried...to user process. If the extra overhead of context switches from kernel to user and **copying** from kernel buffers to user buffers are considered, (to make them comparable to the Amoeba...

...kbytes/sec when mapping incoming data from kernel to user and 575 kbytes/sec when **copying** it (L. Peterson, private communication).

Similarly, the published Sprite figures are also kernel-to-kernel... secure against attack. Other security aspects will also be tightened, including the addition of secure, **encrypted** communication between client and server. Also, the larger capabilities will have room for a location... per reliable broadcast). This protocol is described in [12]. There are many applications (e.g., **replicated** databases of various kinds) which are simplified by reliable broadcasting. Amoeba 5.0 will use this **replication** facility to support fault tolerance.

Although not every LAN supports broadcasting and multicasting in hardware...

...an enormous performance gain for many applications. For example, a simple way to update a **replicated** database is to send a reliable multicast to all the machines holding **copies** of the database. This idea is obvious and we should have realized it earlier and...

...fast, while the directory server design gives a flexible protection scheme and also supports file **replication** in a simple and easy-to-understand way. The key element here is the fact that files are immutable, so they can be **replicated** at will, and **copies** regenerated if necessary.

The entire **replication** process takes place in the background (lazy **replication**), and is entirely automatic, not bothering the user at all. We regard the file system...in a capability-based system, it is very difficult to get the whole concept of **user** -ids and group-ids **right** . Our **view** of protection is totally different.

Furthermore, Amoeba is essentially a stateless system. This means that...

...can discover capabilities and do considerable damage. In a production environment some form of link **encryption** is needed to guarantee better security. Although some thought has been given to a security...Like MIT's Kerberos [23] it uses a trusted authentication server for key establishment and **encrypts** all network traffic.

We hope to install both versions and investigate the effects on performance...

...mapped from the sender's address space to the receiver's address space, thus avoiding **copying** . Amoeba does not do this because we consider the key issue in a distributed system...23 (May 1990), 23-33.

[20] Pu, C., Noe, J.D., Proudfoot, A. Regeneration of **replicated** objects: a technique and its Eden implementation. In Proceedings of the 2nd International Conference on...

CAPTIONS: The Amoeba architecture. (chart); A directory with three **user** classes, four entries, and five **rights** . (table); Wide-area communication in Amoeba involves six processes. (chart)

14/K/37   (Item 9 from file: 275)
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01348069   SUPPLIER NUMBER: 08127700   (USE FORMAT 7 OR 9 FOR FULL TEXT)
Newsbytes Index. (February 1, 1990) (highlights)
Endrijonas, Janet
Newsbytes, NEW01310043
Jan 31, 1990
DOCUMENT TYPE: highlights   LANGUAGE: ENGLISH   RECORD TYPE: FULLTEXT
WORD COUNT: 31106   LINE COUNT: 02775

...   next four years, under which it will supply the U.S. Air Force with enough **copies** of Windows to fill the screens of 200,000 PCs.

AGRICULTURE COTTONS TO EDS SYSTEM...NB) -- Xerox has announced the 2520 Engineering Copier, a $7,495 plain-paper copier that **copies** on continuous paper to E-size at the rate of 12 feet-per-minute and has a selective **copy** feature which **copies** only specific portions of a document up to 36 inches wide.

(John McCormick/199022/Press...first glance - to be a complex shareware agreement.. On closer inspection, the agreement committed the **user** to paying a **license** fee to PC Cyborg Corporation in Panama.

The AIDS program, meanwhile, **encrypted** and trashed the user's hard disk directory in such a way as to make...has released its line of data conversion products and its version 2.0 of DBMS/ **Copy** data conversion utility.

The products converts between databases, spreadsheets, statistics, SQL, time series, data entry, vertical, and mainframe packages. DBMS/ **Copy** 2.0 supports 65 software packages and adds a pop-up menu and keystroke capture...

...including Excel, Lotus 1-2-3 version 1 and 2, Quattro, and 14 databases.

DBMS/ **Copy** Plus includes all of the features of DBMS/ **Copy** , plus functions for customizing transfers; select only certain records, transfer only specific variables. DBMS/ **Copy** Lite was designed for packages used everyday. This program supports the packages used by most computer users including 26 spreadsheets and ASCII formats supported by the DBMS/ **Copy** product line.

Prices are $89, $195 and $295 for DBMS/ **Copy** Lite, DBMS/ **Copy** and DBMS/ **Copy** Plus respectively for use on IBM PC and compatibles.

(Lori Bragg and Computer Currents/19900119...by the end of the year. To promote Windows, Microsoft will distribute 200,000 free **copies** starting this spring.

Furthermore, the application Works, featuring an integrated word processor, spreadsheet, graphics, database...at nominal rates.

To date, Trans-send Plus has sold in excess of 120,000 **copies** . This figure is expected to almost double over the next two years, as Messiter has...

...Terms of the deal call for Messiter Software to supply a minimum of 70,000 **copies** of the package in a total of nine languages over a two-year period.

(Steve...to move away from the interactive system to a store-and-forward format, allowing for **encryption** or coding of key data.

"We acknowledge ETS has an enormous potential, but we believe...that's not a very long message. No aspect of the messages can be cut, **copied** , pasted, or saved to disk. Yes, you can print them. I'm someone who characteristically...

...FKeys, INITs, windows, lack of support for utilities that provide additional menus, inability to cut, **copy** , paste, inability to save to disk, and inability to print in many key areas of...Wan-Kenobee addressed me and told me to trust in the force!

Star Wars is **copy** protected via the key disk routine in which you must have the original floppy inserted...43

CODS	4.25	192
COHR Coherent	10.12	281
COMS 3com	10.62	1822
COPY	12.00	282
CPCI	3.62	0
CPQ Compaq Computer	78.00	6261
CPRD Computer...		

...Dataram 9.62 0

DYTC Dynatech	16.50	67	
EA Electronic Assoc	2.75	7	
ECC **Ecc** Intl	5.87	194	
EDAT	7.25	12	
EFIC	4.06	22	
ELMG	6.25...XEROX		

Xerox has announced the 2520 Engineering Copier, a $7,495 plain-paper copier that **copies** on continuous paper to E-size at the rate of 12 feet-per-minute and has a selective **copy** feature which **copies** only specific portions of a document up to 36 inches wide.

FIRST AUSTRALIAN CLIPPER CONFERENCE...has released its line of data conversion products and its version 2.0 of DBMS/ **Copy** data conversion utility.

LOTUS EXTENDS 1-2-3 REBATE OFFER

The $100 rebate offer to...the shops display and sell genuine goods, but many are still able to supply illicit **copies** from a backroom or a nearby storeroom.

Repeated raids by the Customs and Excise Department...a WP package provides an English English dictionary is to buy it, or a pirated **copy** . Frequently an English dictionary is available - but only as an optional extra. Who can blame...

...his spelling properly because he didn't have the sense to try out an illicit **copy** first?

What it all comes down to is arrogance on the part of all too...

...for software and abide by all the finer licencing conditions - or buy a $4 pirate **copy** . There are at last signs that the companies are coming to their senses and making...

...process is not confined to students, however. Many real users have started off with pirated **copies** for the reasons mentioned earlier. No one whose livelihood or business depends on the reliability of computer software entrusts it in the long run to a pirate **copy** . That may be

alright as long as the program works. But what happens when it...those lost
millions. The truth, Gentlemen, is that most of the people buying those
pirated **copies** bought them to learn, did not want them for real business
use, could not have...

14/K/38 **(Item 10 from file: 275)**
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01245654 SUPPLIER NUMBER: 06999071 (USE FORMAT 7 OR 9 FOR FULL TEXT)
CD-ROM publishing strategies. (includes related article on the High Sierra
  Group proposal for logical file structure of CD-ROM)
Helgerson, Linda W.; Meyer, Fred P.; Mirecki, Ted
PC Tech Journal, v6, n10, p52(9)
Oct, 1988
ISSN: 0738-0194 LANGUAGE: ENGLISH RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 6338 LINE COUNT: 00496

... restriction of a CD-ROM is that it is a read-only medium: data are
encoded onto a glass master disk at a manufacturing facility and cannot be
"replaced" on the disk once it is mastered. **Duplicate** disks are produced
from the master, much like a standard printing operation.
  Most CD-ROMs...

...the information requirements of the end user, and the hardware
requirements of the targeted end- **user** market. The " **right** " combination
of these reasons will compel a publisher to consider CD-ROM as an
alternative...ANSI-labeled tape, except that all labels and data are
written in EBCDIC, the character- **encoding** scheme used on IBM mainframes,
rather than in ASCII. EBCDIC defines 256 characters using an...offers two
more fields: 2,048 bytes of user data followed by 288 bytes of **error -**
correction **code** . In mode 2, user data occupy 2,336 bytes, with no
error-correction field. Mode...

...shares the underlying physical disk structure with CD audio, it can
combine storage of digitally **encoded** audio with data. The CD audio
standard defines a sampling frequency of 44.1 KHz...reliably gauge the
retrieval speed on the optical medium.
  Hardware/software simulation tools that can **duplicate** the
performance of a CD-ROM drive on magnetic disks overcome these differences.
Such tools...

...due to position within the database. Using these tools, the developer
can produce results that **duplicate** those obtained with an actual pressed
disk. The simulation process shows exactly how the database...

...to ensure data integrity; thus, the CD-ROM production environment should
be capable of producing **duplicate** tape sets.
  The data submitted are used to produce a glass master. In the
recording...Alberto Way Los Gatos, CA 95032 408/395-4332 deskTOPiX macTOPiX
TOPiX CD-ROM Premastering/ **Encoding** System TOPiX Software OWL
International Inc. 14218 N.E. 21st Street Bellevue, WA 98007 206...
...through the path table.
  The other distinguishing characteristic of the HSG standard is its
dual **encoding** of numeric data in the directories. To facilitate the
processing of directories by a variety...

...and again with the most significant byte first (as required by
minicomputers and mainframes). This **duplication** improves the performance

at the expense of disk capacity--a reasonable trade-off, given the...

14/K/39   (Item 11 from file: 275)
DIALOG(R)File 275:Gale Group Computer DB(TM)
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01213325   SUPPLIER NUMBER: 05158724   (USE FORMAT 7 OR 9 FOR FULL TEXT)
**DC2000 systems: pocket-size backup. (cartridge tape backup systems for
  microcomputer users)**
Rosch, Winn L.
PC Magazine, v6, n12, p111(7)
June 23, 1987
DOCUMENT TYPE: evaluation   ISSN: 0888-8507   LANGUAGE: ENGLISH
RECORD TYPE: FULLTEXT; ABSTRACT
WORD COUNT: 5625   LINE COUNT: 00433

...   the magnetic surface of the tape is the read/write head.
     Currently, three companies hold **licenses** to **use** this technology
and make cartridges: 3M, which originally developed the system; Data
Electronics Inc. (DEI...

...the possible 60-megabyte capacity of the DC2000 tape is devoted to
format structure and **error   correction** , using both cyclical redundancy
checking and a Reed Solomon **code** (an efficient **error - correction**
algorithm that's also used in such areas as interplanetary communications).
As a result, an...less because the specification calls for Group-Coded
Recording, which uses five flux reversals to **encode** each 4-bit nibble of
data. (Although it sounds somewhat contrary to logic, GCR actually...

...of data (the manufacturer defines the length of data blocks) features a
special Cyclic Redundancy **Code** block to detect data **errors** . In
addition, the standard allows the use of **error   correction** .
     NOT SO SPEEDY As clever as these systems are, both have limitations.
Some are related...

...that of high-speed floppy disk backup systems --limited, however, by the
overhead required for **error - correction   codes** and the necessities of
the drive mechanism. QIC-100 systems should be able to fly...the TD-440
familiar to the user and to DOS. You use DOS commands like **COPY** , MKDIR,
ERASE, and CHKDSK to run the little tape drive. As a result, you need...

...Performance is not a virtue of the TD-440. The PC Labs BIGFILE test,
which **copies** a 10-million-byte file using DOS, required 24 minutes,
versus about 2 minutes to...

14/K/40   (Item 1 from file: 636)
DIALOG(R)File 636:Gale Group Newsletter DB(TM)
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02589566   Supplier Number: 45235104   (USE FORMAT 7 FOR FULLTEXT)
CYBERSURFING Fall Internet World 94 6 - 9 December: Washington DC
Multimedia & Videodisc Monitor, v13, n1, pN/A
Jan, 1995
Language: English   Record Type: Fulltext
Document Type: Newsletter; Trade
Word Count: 3720

...   an integrated e-mail package, a toolbar with shortcut buttons for

streamlined navigation, and a **copy** of the New Riders' Official Internet
Yellow Pages -- in electronic form.
   The package runs under...

...of-the-line AlphaServer 1000 is a highly-expandable system providing
fully redundant power supplies, **error** **correction** **code** cache and
memory, and hot swap disk. The AlphaServer 400 is geared as a development
...routers, as well as software routers.
   Available in the first quarter of 1995, IWare is **licensed** on a
concurrent **user** basis, with prices beginning at $995 for a five- **user**
license (Paul Singh, Suite 420, 505 West Olive Avenue, Sunnyvale CA 94086,
408/244-6141, 408...the World Wide Web. With a Secure HTTP-enabled
application, users and information providers can **encrypt** and sign
messages and other material digitally. SecureWeb kits incorporate RSA
public key cryptography technology...
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